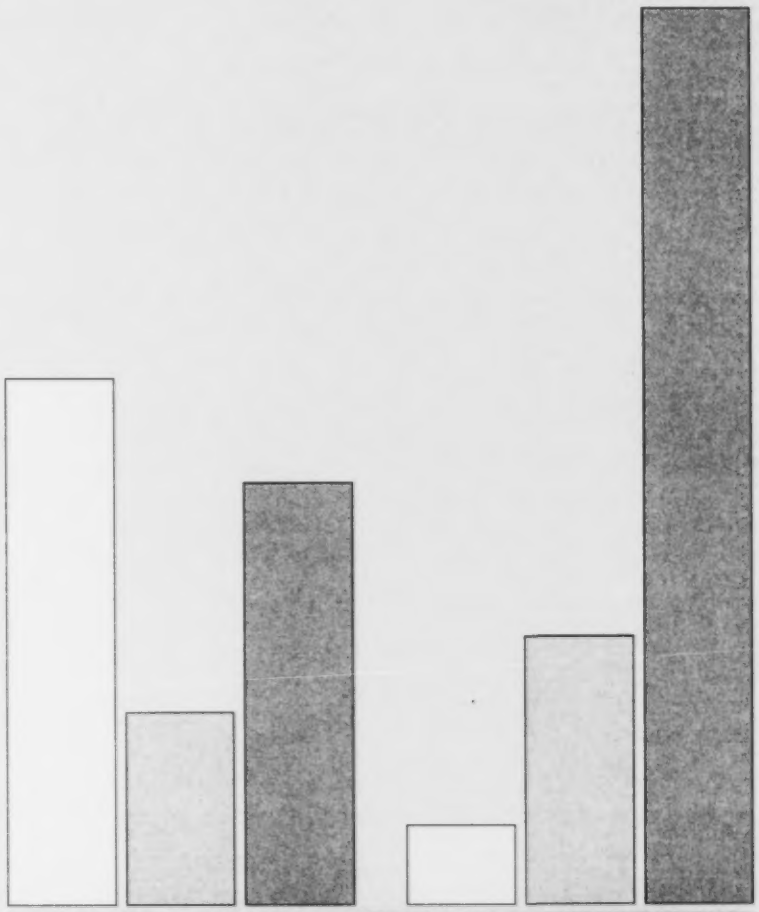


Report to Yukoners on comparable health and health system indicators

2002

Yukon
Health and Social Services

Disponible en français sur demande

Yukon
Office of the Minister
Box 2703, Whitehorse, Yukon Y1A 2C6

September 30, 2002

Two years ago, in September 2000, First Ministers announced they would begin reporting on a set of indicators related to health status, health outcomes and quality of service in each of their jurisdictions. Over the past two years, we have collectively worked on developing a set of indicators that we all – big and small – could jointly use.

The purpose of this performance measurement is to enable all governments to establish some common benchmarks that will help them to be more accountable to their citizens.

Health and Social Services worked very closely with the Yukon Bureau of Statistics to prepare the Yukon report for the PIRC indicators. The report follows the guidelines that were established for all jurisdictions to use. Each jurisdiction had its report reviewed by an independent third party. The Yukon report was verified by the Auditor General of Canada. His comments are part of this document.

This report does not replace the Yukon Health Status Report but the two reports will have some information in common.

The information contained in this report is not new information but for the first time, it brings it all together in a context that is being shared nation wide.

Sue Edelman

Sue Edelman, Minister
Health and Social Services

104-06051/

Report to Yukoners on comparable health and health system indicators, 2002

CONTENTS

INTRODUCTION 1

HEALTH STATUS 4

1. Life expectancy 4
2. Infant mortality 7
3. Low birth weight 9
4. Self-reported health 11

HEALTH OUTCOMES 14

5. Change in life expectancy 14
6. Improved quality of life 22
7. Reduced burden of disease, illness and injury 23

QUALITY OF SERVICE 36

8. Waiting times for key diagnostic and treatment services 36
9. Patient satisfaction 36
10. Hospital re-admissions for selected conditions 40
11. Access to 24/7 first contact health services 40
12. Home and community care services 40
13. Public health surveillance and protection 43
14. Health promotion and disease prevention 48

AUDITOR'S REPORT 75

INTRODUCTION

In September 2000, First Ministers issued a *Communiqué on Health* in which they agreed to provide clear accountability reporting to Canadians. First Ministers directed Ministers of Health to provide comprehensive and regular public reporting and to collaborate on the development of a comprehensive framework using jointly agreed-upon comparable indicators addressing health status, health outcomes and quality of service.

Indicators are measures or statistics that convey quantifiable information about the health of Canadians, the use, delivery, and impact of the health system and other factors (e.g., lifestyle) which may affect health and well-being.

Health Ministers established the federal/provincial/territorial Performance Indicators Reporting Committee (PIRC) to develop the framework of jointly agreed-upon indicators in the 14 required areas.

PIRC developed and carried out a survey to assess the capabilities and views of the federal, provincial, and territorial jurisdictions regarding potential specific indicators in the 14 areas. Based on the survey results, PIRC made recommendations regarding specific indicators for the 2002 reports, guided by the following criteria: relevance for a public audience/focus on public concerns; easily understood by the public; technical merit; likelihood of achieving reasonable agreement on concepts, methods and data; availability of comparable data by 2002; amount of work needed to achieve comparable reporting.

This is the first report on the 14 indicator areas for the Yukon. The indicator sets are divided into three sections:

HEALTH STATUS

- Life expectancy
- Infant mortality
- Low birth rate
- Self-reported health

HEALTH OUTCOMES

- Change in life expectancy
- Improved quality of life
- Reduced burden of disease, illness and injury

QUALITY OF SERVICE

- Waiting times for key diagnostic and treatment services
- Patient satisfaction
- Hospital re-admission for selected conditions
- Access to 24/7 first contact health services
- Home and community care services
- Public health surveillance and protection
- Health promotion and disease prevention

A description of the relevance of each indicator is provided with the text taken from the *Plan for FPT Reporting on 14 Indicator Areas.* In order that this report be comparable to reports released by the other provincial and territorial jurisdictions, the requirements described in the *Plan* have been followed in detail, whenever possible.

SOME CAUTIONARY COMMENTS

Yukon has used the same measures to report on the 14 indicator areas as other jurisdictions (e.g., rates per 100,000, incidence rates, prevalence rates), and where required, we have included comparable figures for Canada.

Drawing conclusions from statistical data is always tentative, and the numbers and graphs presented in this report offer but one perspective on health and health care in the Yukon. As we attempt to determine what these data "really mean," it is important to understand that Yukon's small population can complicate interpretation.

Very small changes in absolute numbers (e.g., the number of new cases of a particular disease) can show up as a large percentage change or a large change in rate per 100,000 population, and we must be cautious in the interpretations we make or the conclusions we draw. An example may help to illustrate this point.

Let's suppose that in 1998, two Yukoners were diagnosed with a particular type of cancer and three Yukoners were diagnosed in 1999. This would translate into a 50 percent increase in the incidence of this type of cancer from 1998 to 1999, even though it was based on only one additional person being diagnosed. While a 50 percent increase would be noteworthy in a larger jurisdiction due to the large numbers of people who would have been diagnosed, it would be inappropriate to conclude that this type of cancer is on the increase in Yukon based on these data.

Let's take this example further. Suppose that in the year 2000, there was only one case diagnosed. This could be represented as a 67 percent decrease from the 1999 (when there were 3 cases), and it would be equally misleading to conclude that the particular type of cancer in question was now on the decline.

Throughout the report, you will see data presented as rates per 100,000 people. This is a standard measure for reporting disease rates and works very well when the population is large. Unfortunately, this measure, like percentage change, can pose similar problems for small jurisdictions like the Yukon. Yukon's current population is just under 29,000 (the 2001 Census reported 28,674); charts which show Yukon data as "rates per 100,000 of population" have been calculated or extrapolated from the absolute numbers which can be very small. Such calculations may be misinterpreted if the absolute numbers are not taken into account.

Graphs which depict this kind of data from year to year will have many significant fluctuations or variability, referred to as "volatility." In contrast, data gathered in larger jurisdictions or from Canada as a whole tend to produce smooth curves because of the large numbers involved. Rolling averages, which are based on numbers gathered over a three-, as opposed to one-, year period, can present a more stable picture of what is going on than yearly averages. By pooling the data from several years, we can increase the stability and representativeness of the data, and a smoother curve results. You will see that several graphs have been prepared in this way.

Unfortunately, there is a downside to pooling the data. Researchers, policy makers and others may need "detail" in order to make better decisions, and true trends in the data may be more difficult to discern. Selecting a time frame of 3 years over which rolling averages are calculated might strike an appropriate balance.

Most of the 14 indicators present data gathered on Yukoners alongside of data on Canadians (who number just over 30,000,000). While it is tempting to make comparisons between the health of Yukoners and the health of Canadians, it should be done with an appreciation of the numbers involved. As we have seen, data based on small numbers of people are more prone to fluctuations, which may be more indicative of the volatility of the absolute numbers involved rather than the relative incidence of the disease. Consequently, these data are less reliable, at least in determining "trends," than data gathered from larger populations.

Finally, only descriptive data are presented in this report; no inferential statistical analyses were conducted. Inferential statistics allow us to make statements about how confident we are that the descriptive data accurately reflects the condition in question. This is what is meant by the term "statistical significance." Differences, even large differences, in data from year to year, between men and women, or across jurisdictions, may or may not be statistically significant. Any differences you may see in this report are invitations to look more carefully at the data, to delve more deeply into the issue, or to conduct statistical analyses to determine whether the difference represents a real change or the volatility of the data (due to the small numbers).

SUPPRESSION OF DATA DUE TO SMALL NUMBERS

Statistics Canada and the Canadian Institute of Health Information suppress data where the actual number of cases is less than 5 for reasons related to confidentiality. For some indicators, the data source is Health Canada, which does not adhere to this guideline. We have chosen to report on these data, even where the statistics are based on numbers less than 5, because the data have already been reported, and are readily available on the public Web sites.

HEALTH STATUS

Indicators in this category are intended to reflect population health status.

1. LIFE EXPECTANCY

1a. Life expectancy

DEFINITION

The number of years a person would be expected to live, starting from birth (for life expectancy at birth) or at age 65 (for life expectancy at age 65), on the basis of the mortality statistics for a given observation period, typically a calendar year.

RATIONALE

Life expectancy is a widely used indicator of the health of a population. In developed countries, life expectancy is higher for women than for men, and is related to socio-economic factors such as poverty and education levels. The highest life expectancies in the world in 1999 were in Japan: 84.1 for women, and 77.3 for men (United Nations, *Human Development Report 2001*).

Life expectancy is an indicator of the quantity, rather than quality, of life. Increases in life expectancy that are associated with increased prevalence of serious debilitating disease may not be judged to be as worthwhile as the same increase in life expectancy where the added years are lived in good health.

Life expectancy is a standardized statistical indicator. It is not the number of years a particular newborn (or person currently age 65) can actually expect to live. The reason is that mortality rates only for the observation period (e.g., 1998) are used, and these are averages for the entire population.

Figures 1a.1, 1a.2 and 1a.3 indicate that the life expectancy at birth for all Canadians, male and female, has been increasing slowly over the past two decades. The life expectancy figures for Yukon residents follow this same upward trend but remain marginally lower than for other Canadians. This slight difference may be related to the disproportionate number of deaths due to accidents and injury among younger Yukoners that has been noted in previous Yukon Health Status Reports. Of note, however, is that the magnitude of the difference in life expectancy of Yukoners, as compared to Canadians as a whole, has decreased from 1979 to 1999.

FIGURES 1a.1-3. Life expectancy in years at birth, Canada and Yukon, 1979-1999. Three-year rolling annual averages

FIGURE 1a.1.
Both sexes

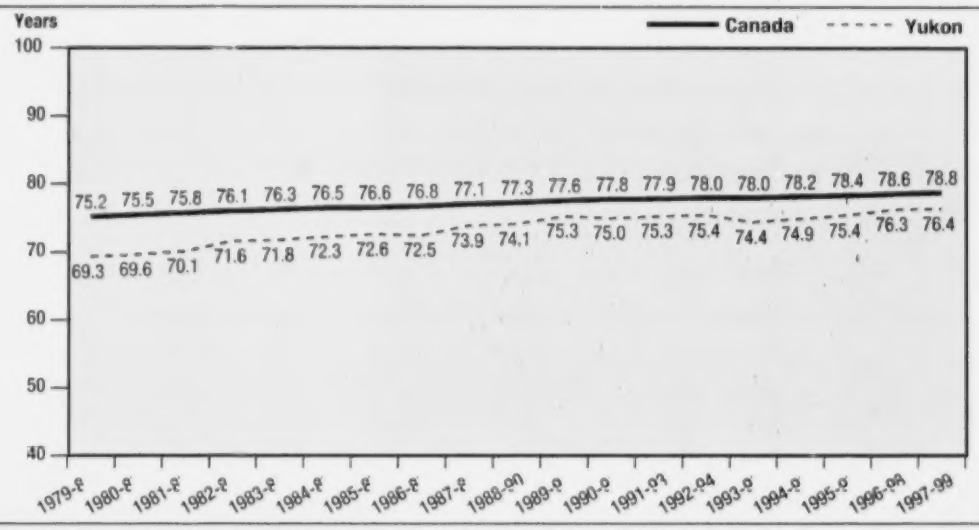


FIGURE 1a.2.
Males

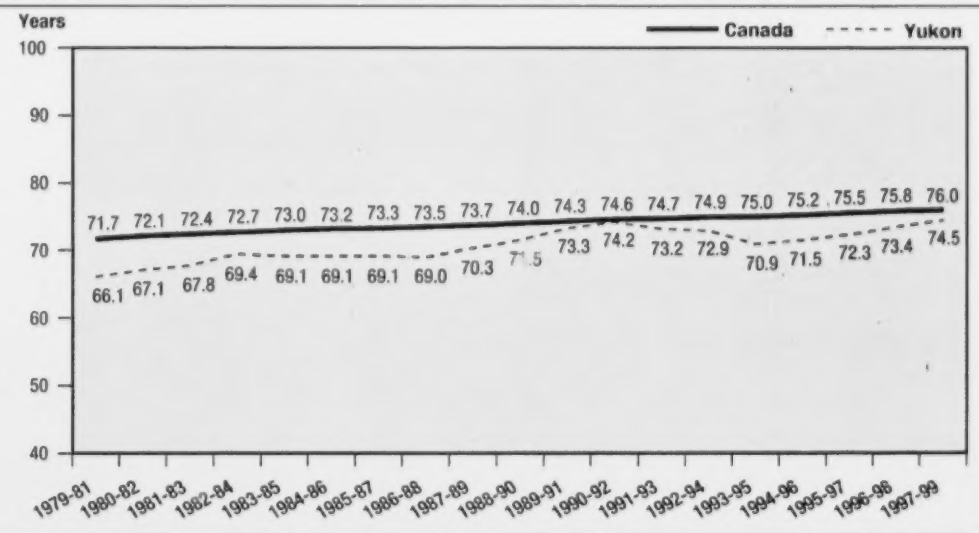
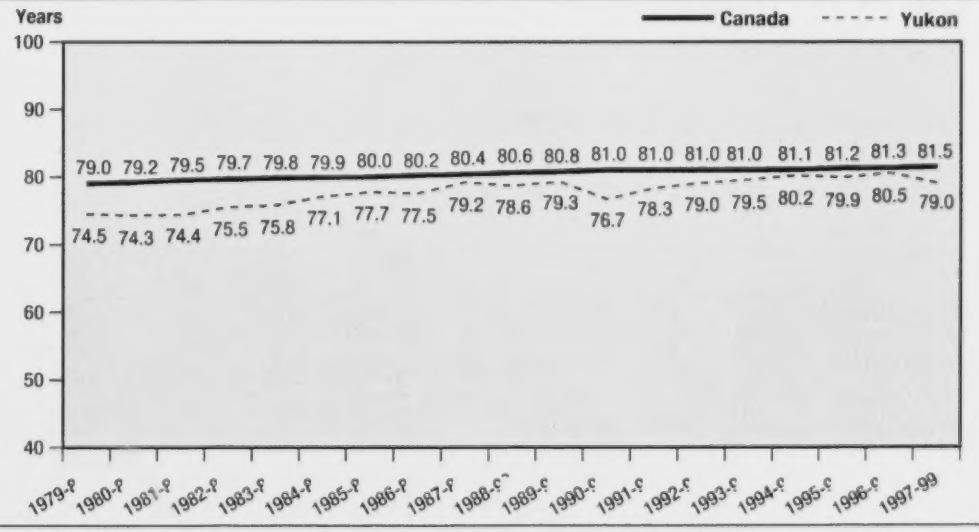


FIGURE 1a.3.
Females



Source (Figures 1a.1-3): Statistics Canada (CANSIM II).

1b. Disability-free life expectancy (DFLE)

DEFINITION

The number of years an average individual would be expected to live free of moderate or severe disability, starting from birth (for DFLE at birth) or at age 65 (for DFLE at age 65), on the basis of the mortality statistics and disability prevalence patterns by age and sex for a given observation period, typically a calendar year.

RATIONALE

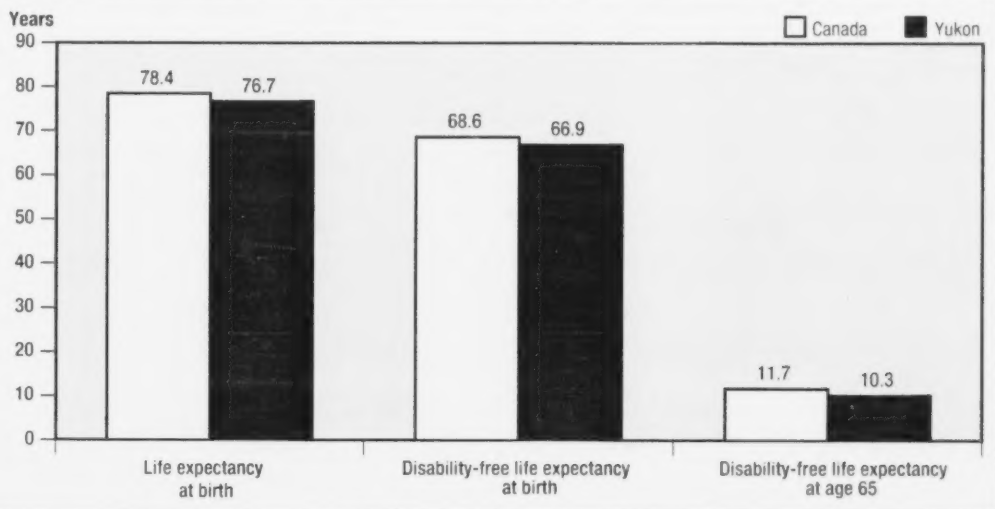
DFLE is an increasingly used indicator, and complements conventional life expectancy measures. It was developed to reflect the fact that not all years of a person's life are typically lived in perfect health. Chronic disease, frailty, and disability tend to become more prevalent at older ages, so that a population with a higher life expectancy may not be healthier.

Anyone with moderate or severe disability or who lives in an institution is counted as disabled, and everyone else, even with some disability, is counted as not disabled.

Figures 1b.1 and 1b.2 indicate that the DFLE of Yukoners at birth and at age 65 years for both males and females is slightly lower than for other Canadians, as would be anticipated from the overall life expectancy at birth data.

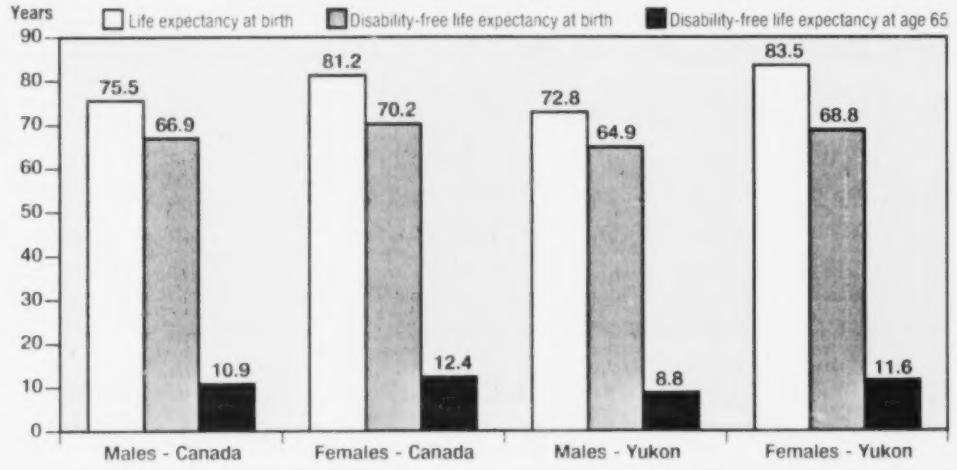
FIGURES 1b.1-2. Disability-free life expectancy in years, Canada and Yukon, 1996

FIGURE 1b.1.
Total population



Source (Figures 1b.1): Statistics Canada, CANSIM II, tables 102-0018 and 102-0019 and Canadian Vital Statistics, Birth and Death Databases, Demography Division #82-221-XIE

FIGURE 1b.2.
Male and female



Source (Figures 1b.2): Statistics Canada, CANSIM II, tables 102-0018 and 102-0019 and Canadian Vital Statistics, Birth and Death Databases, Demography Division #82-221-XIE

2. INFANT MORTALITY

DEFINITION

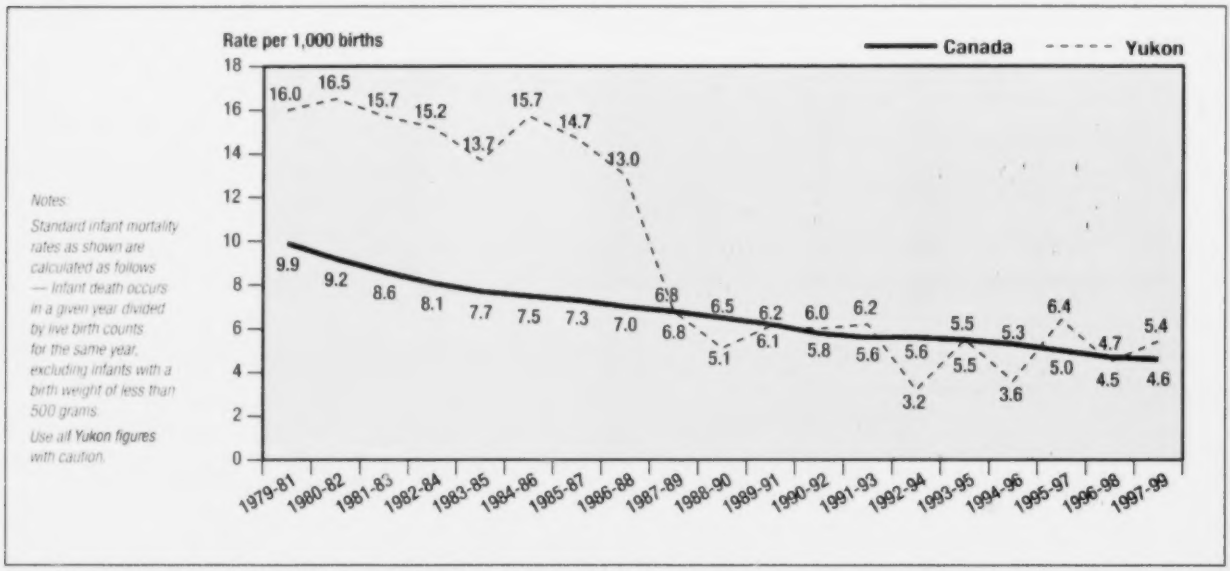
The number of infants who die in the first year of life, expressed as a rate (per 1,000 live births) for that year.

RATIONALE

The infant mortality rate is a long-established measure of child health as well as the well-being of a society. It reflects not only the level of mortality, but also the health status and health care of a population, the effectiveness of preventive care and the attention paid to maternal and child health, as well as broader social factors such as maternal education, smoking and relative deprivation. Low birth weight in Canada is now the principle risk factor associated with infant mortality. Pre-term births account for approximately 75-85% of all perinatal mortality in Canada (*Canadian Perinatal Health Report*, 2000).

Figure 2 indicates that the adjusted infant mortality rate for Canada decreased over the period 1979 to 1999 (the last year for which complete data are available). During this same period of time, the infant mortality rate in Yukon has also shown an overall decline.

FIGURE 2. Standard infant mortality rates (rates per 1,000 live births >500 grams), Canada and Yukon, 1979-1999. Three-year rolling annual averages



Notes:

Standard infant mortality rates as shown are calculated as follows — Infant death occurs in a given year, divided by live birth counts for the same year, excluding infants with a birth weight of less than 500 grams.

Use all Yukon figures with caution.

Source (Figure 2): Statistics Canada, Canadian Vital Statistics, Birth and Death Databases, table no. 102-0030

It is important to note that the number of births per year in Yukon has dropped fairly steadily from 568 in 1991 to 383 in 1999. An infant mortality rate of 2.6 per 1,000 live births, for example, is equivalent to the death of one infant in Yukon. Our small population and our lower birth rate make it difficult to draw any meaningful conclusions about trends during the 1990s. During this time, infant mortality in Yukon expressed as rates per 1,000 live births has been both above and below the national average. These increases and decreases may reflect very small differences in the actual number of infant deaths.

As with life expectancy, the magnitude of the difference in infant mortality rates between Yukon and Canada as a whole has decreased dramatically over the last 20 years.

3. LOW BIRTH WEIGHT

DEFINITION

The proportion of live births (birth weight known) with a birth weight less than 2500 grams and at least 500 grams.

RATIONALE

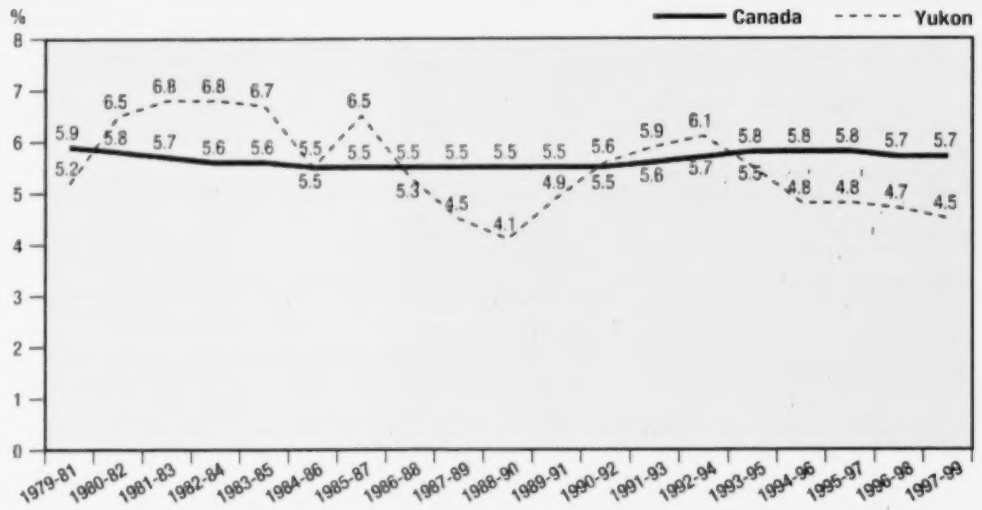
Low birth weight is an indicator of the general health of newborns, and a key determinant of infant survival, health and development. Low birth weight infants are at a greater risk of dying during the first year of life, and if they survive, they have a greater risk of disability and diseases such as cerebral palsy, visual problems, learning disabilities and respiratory problems. Low birth weight is associated with multiple births (twins, triplets, etc.), pre-term births, poor maternal health, lifestyle and economic circumstances. It is also associated with assisted conception (and related multiple births).

Appropriate medical care and a healthy lifestyle for the mother can improve the chances that the baby will have a healthy birth weight. It should be noted that a potentially confounding factor is variations in the ethnic composition of the population since some ethnic groups tend to have babies of lower weight, even though these infants are otherwise healthy.

Figures 3a and 3b, which reflect unadjusted and adjusted low birth weights respectively, indicate that throughout Canada, the percentage of infants with low birth weights has changed little over the past two decades. There may be an overall slight downward trend in Yukon during this period but the numbers fluctuate above and below the Canadian average across these years. Again, these fluctuations may reflect our small population and relatively small total number of live births each year.

FIGURE 3a-b. Percentage of live births with low birth weight, Canada and Yukon, 1979-1999. Three-year rolling annual averages

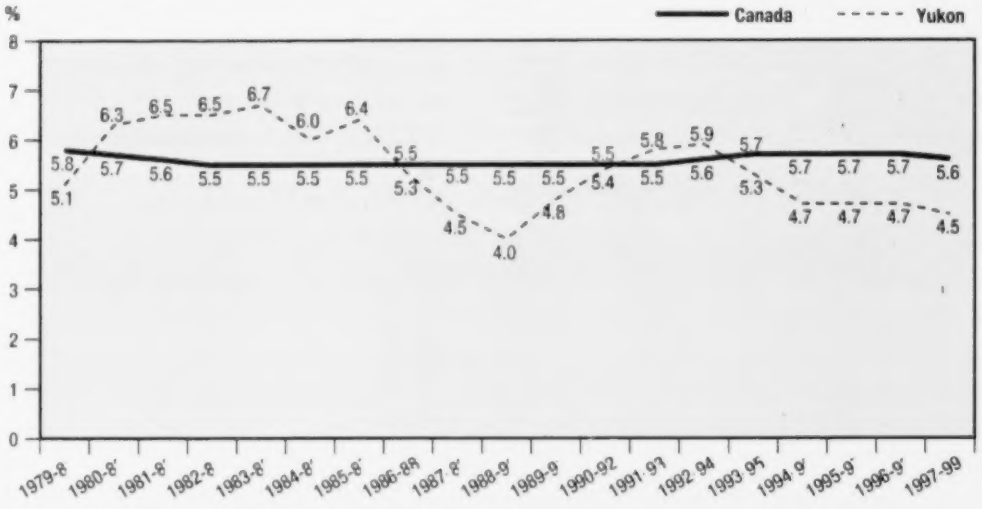
FIGURE 3a. Less than 2,500 grams



Note

Low birthweight rate (LBW) is calculated by dividing the number of low birthweight infants (all infants with a birthweight of 2,500 grams or less) by the total number of live births

FIGURE 3b. Greater than 500 grams and less than 2,500 grams



Note

Low birthweight rate (LBW) is calculated by dividing the number of low birthweight infants (all infants with a birthweight between 500 grams and 2,500 grams) by the total number of live births greater than 500 grams

Source (Figures 3a-b): Statistics Canada, Canadian Vital Statistics, Birth and Death Databases, table no. 102-4005

4. SELF-REPORTED HEALTH

DEFINITION

Percent of the population age 12+ who report that their health is very good or excellent.

RATIONALE

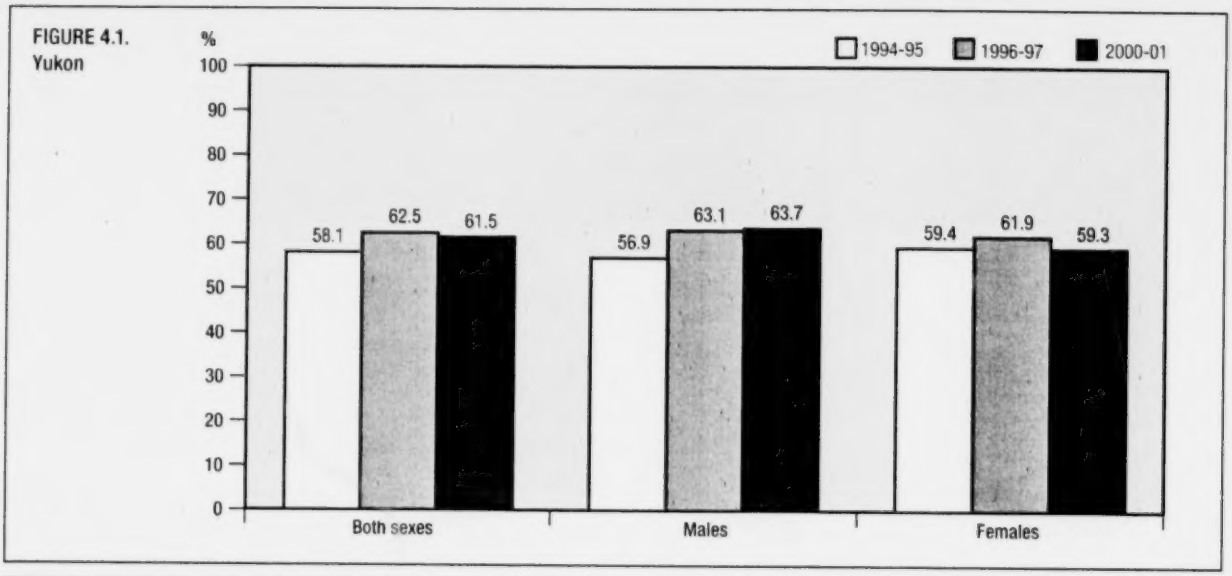
Self-reported health is a general indicator of the overall health status of individuals. It can include what other measures may miss: incipient disease, disease severity, some aspects of positive health status, physiologic/psychological reserve, social and mental function.

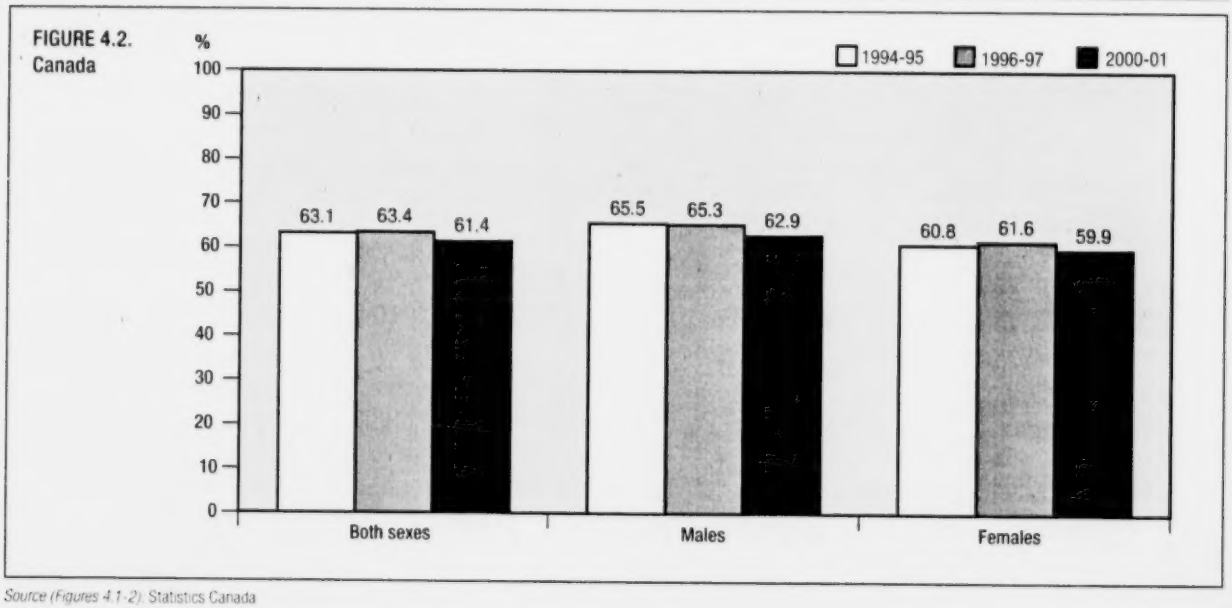
Self-reported health data have been collected using a five-point reporting scale, ranging from excellent to poor. Studies indicate that when individuals rate their health in response to this question, they tap into information that has important predictive power relating to chronic disease incidence, functional decline and ultimately survival. Numerous longitudinal studies have found that self-reported health is predictive of mortality even when more objective measures such as clinical evaluations are taken into account. This indicator applies to individuals 12 years old and older living in private households.

In the figures included for this section, the data for Canada have several exclusions from the sample: persons living on First Nation Reserves and on Crown lands, residents of institutions, full-time member of Canadian Armed Forces and residents of certain remote regions. Persons less than 12 years of age are not surveyed. None of the First Nations persons in Yukon reside on reserves so they would not be excluded from the Yukon sample surveyed.

From a Yukon perspective, slightly more males than females report they are in excellent or very good health. As might be expected, the proportion of Yukoners and Canadians who considered themselves to be in excellent or very good health begins to decline after age 44 and was lowest among seniors aged 65 and older. (Note that Statistics Canada advises that caution be used in interpreting the data on Yukon seniors due to insufficient numbers.)

FIGURES 4.1-2. Self-reported health by gender, proportion of the population reporting excellent or very good health

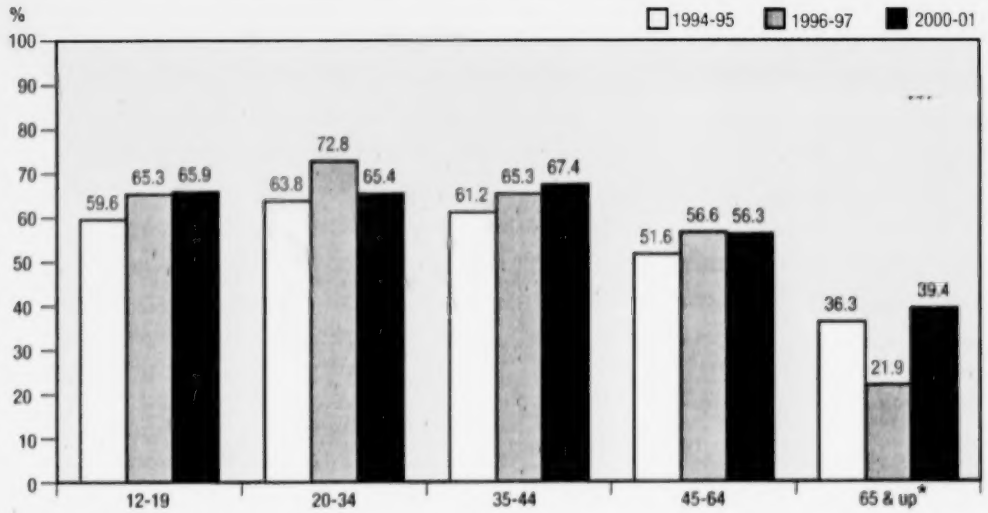




Source (Figures 4.1-2): Statistics Canada

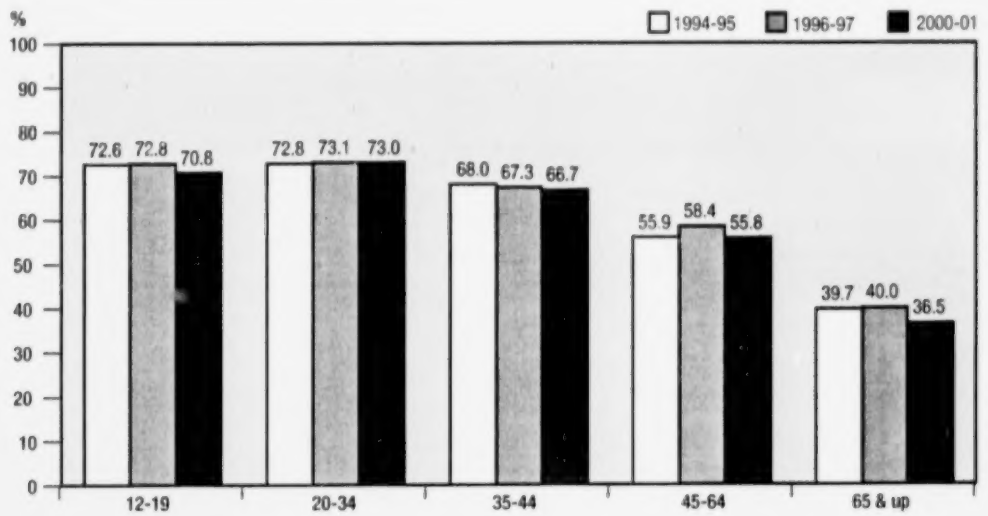
FIGURES 4.3-4. Self-reported health by age group, proportion of the population reporting excellent or very good health

FIGURE 4.3.
Yukon



Note:
**Use with caution*

FIGURE 4.4.
Canada



Source (Figures 4.3-4): Statistics Canada

HEALTH OUTCOMES

Indicators in this area are intended to reflect the impact of health system programs and services on health status. It is recognized that the extent to which particular health outcomes are attributable to health programs and services is difficult to assess based on indicator data alone. Where possible, indicators have been selected where the link between particular interventions and impact on health outcomes has been well established through research.

Although some health system interventions save lives, most interventions are designed to improve health-related quality of life. This is the intended outcome of joint-replacement surgery, and research evidence supports the effectiveness of this surgery in improving health-related quality of life.

5. CHANGE IN LIFE EXPECTANCY

5a. Mortality rates for lung, prostate, breast and colorectal cancer, acute myocardial infarct (AMI) and stroke

DEFINITION

The number of deaths of individuals where the underlying cause of death is one of those specified, per 100,000 population, that would have occurred in the standard population if the actual age-specific rates observed in a given population had occurred in the standard population.

RATIONALE

Age-standardized cancer or AMI or stroke death rate trends may indicate long-term success in reducing deaths from these diseases. Lower death rates indicate success in cancer or cardio-vascular disease prevention, detection, and treatment.

5a.1 *Mortality rates for lung cancer*

The data for Canada indicate a slight downward trend for lung cancer mortality rates among males whereas the rates among females show a small but steady increase over the period 1989 to 1999. This may reflect an increase in the number of Canadian women who have smoked for many years.

As pointed out in the section entitled "Some Cautionary Comments" in the Introduction, the small population of Yukon leads to rates per 100,000 population that fluctuate considerably from year to year, making it difficult to determine trends.

FIGURES 5a.1.1-3. Mortality rates for lung cancer, Canada and Yukon, 1989-1999

FIGURE 5a.1.1.
Both sexes

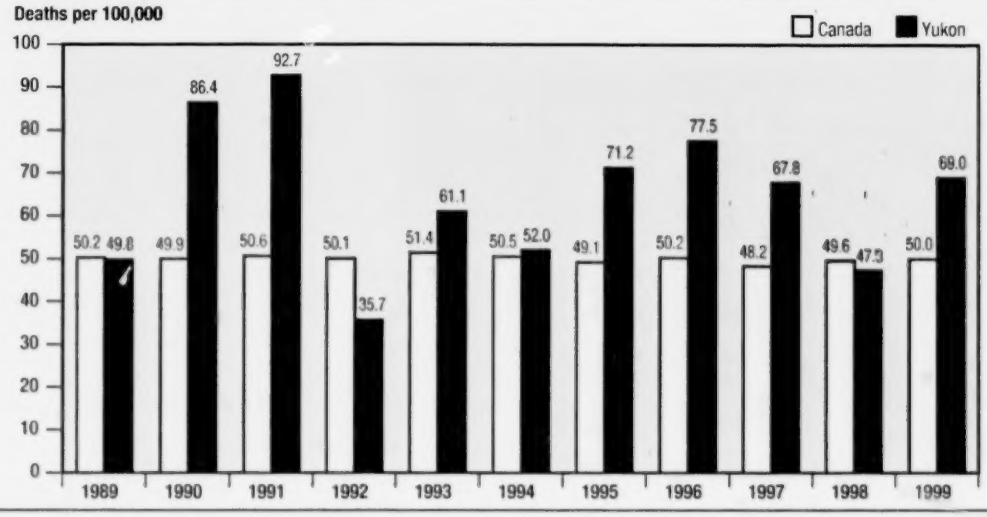


FIGURE 5a.1.2.
Males

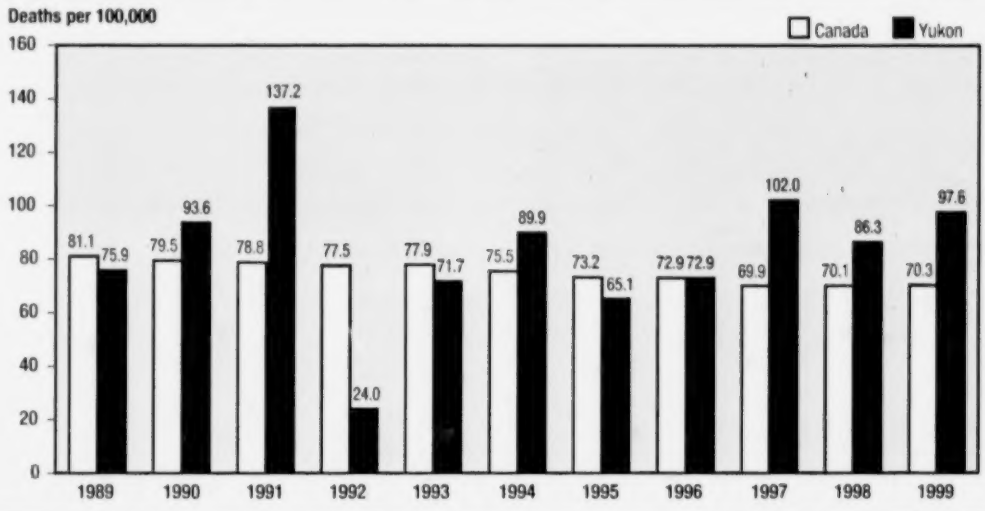
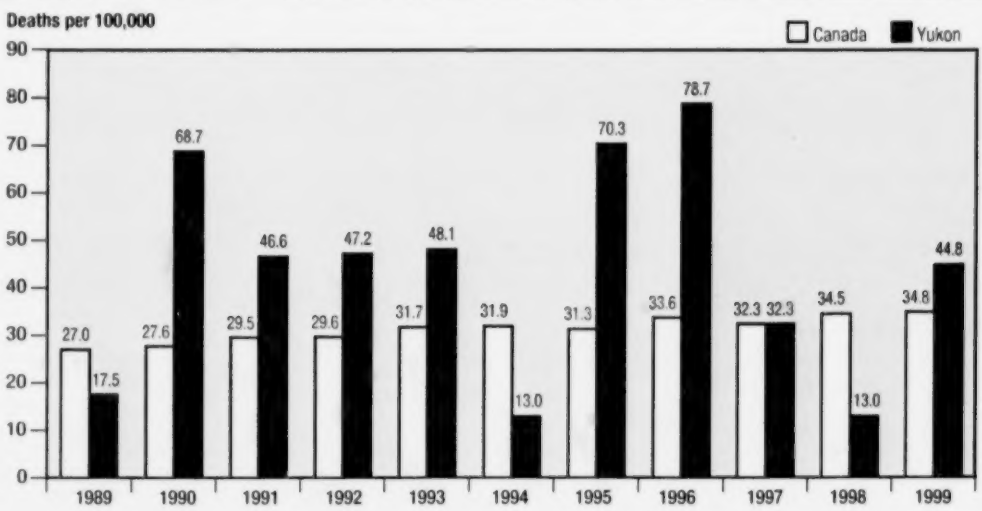


FIGURE 5a.1.3.
Females



Source (Figures 5a.1.1-3): Statistics Canada, Death database and population estimates, CANSIM no. 01020026, ICD-9 162. Mortality rate, age-standardized rate per 100,000 population.

5a.2 *Mortality rates for prostate cancer*

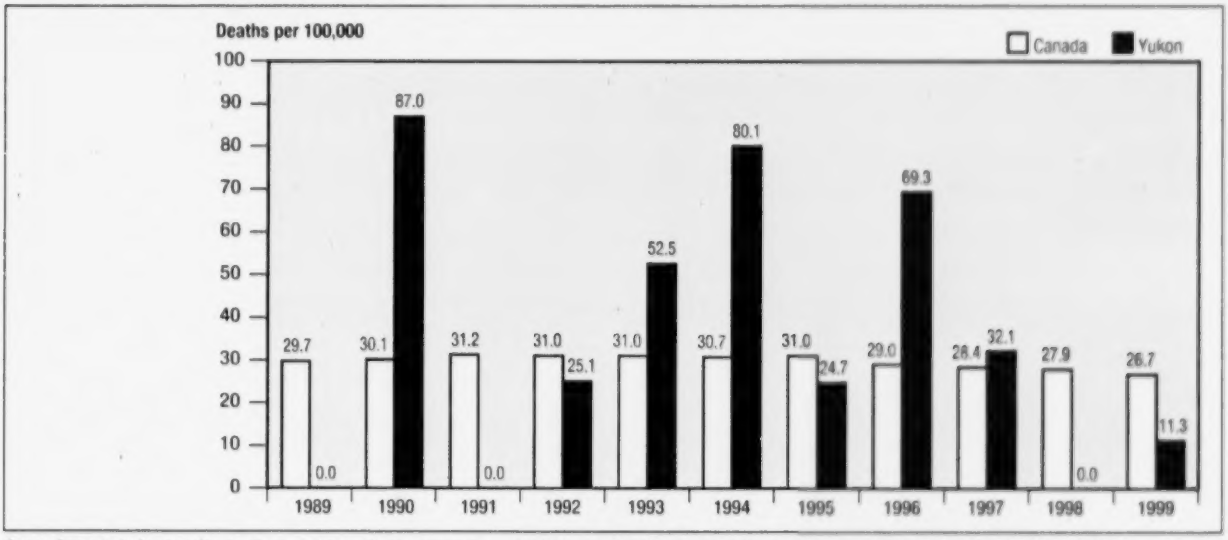
5a.3 *Mortality rates for breast cancer*

5a.4 *Mortality rates for colorectal cancer*

The mortality rate for prostate cancer across Canada has remained relatively stable over the period 1989 to 1999. During this same period, the mortality rates for breast cancer and for colorectal cancer across Canada appear to be decreasing.

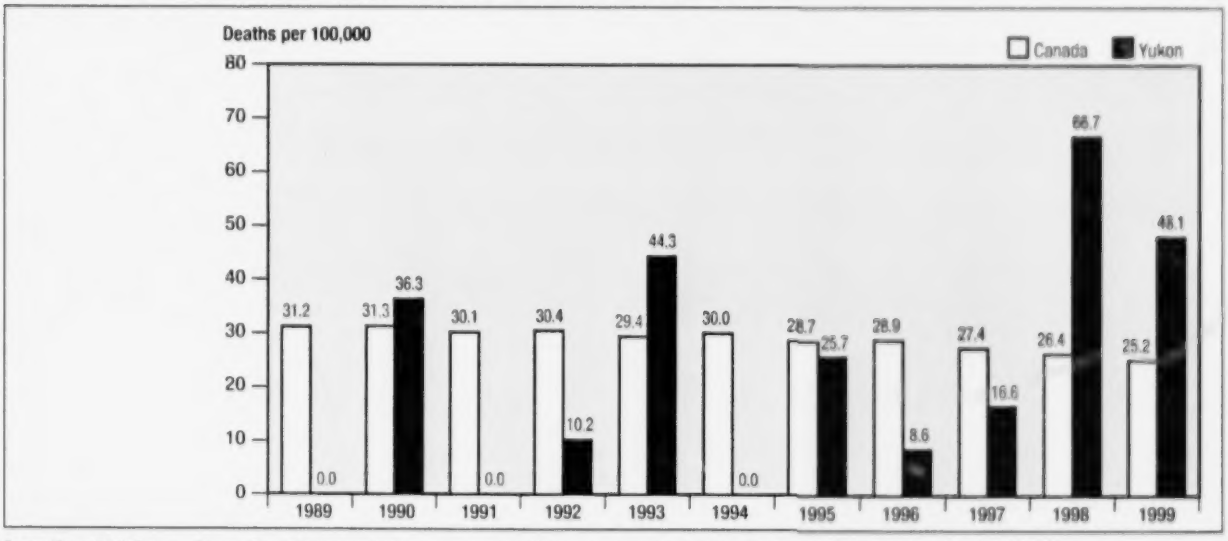
For each of these types of cancers, Yukon rates fluctuate too widely from year to year to determine trends. These fluctuations may be attributed to our small population, and the relatively small numbers of Yukoners who are diagnosed with these cancers.

FIGURE 5a.2. Mortality rates for prostate cancer, males, Canada and Yukon, 1989-1999



Source (Figure 5a.2): Statistics Canada, Death database and population estimates. CANSIM no. 01020026, ICD-9 185. Mortality rate, age-standardized rate per 100,000 population.

FIGURE 5a.3. Mortality rates for breast cancer, females, Canada and Yukon, 1989-1999



Source (Figure 5a.3): Statistics Canada, Death database and population estimates. CANSIM no. 01020026, ICD-9 174. Mortality rate, age-standardized rate per 100,000 population.

FIGURES 5a.4.1-3. Mortality rates for colorectal cancer, Canada and Yukon, 1989-1999

FIGURE 5a.4.1.
Both sexes

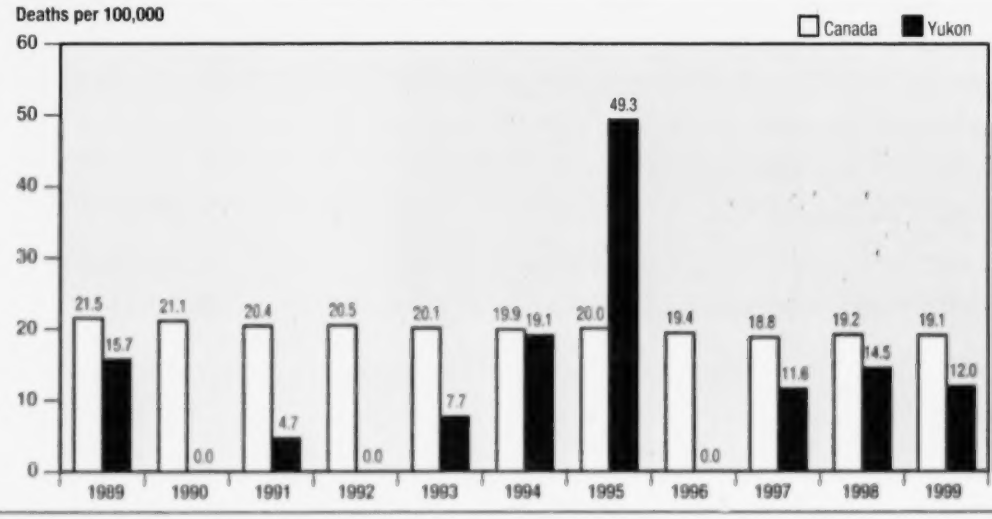


FIGURE 5a.4.2.
Males

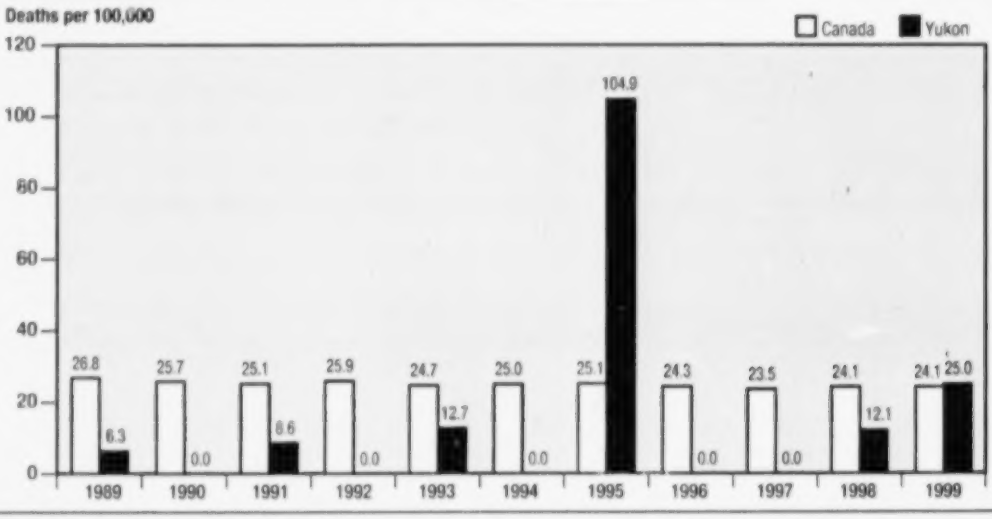
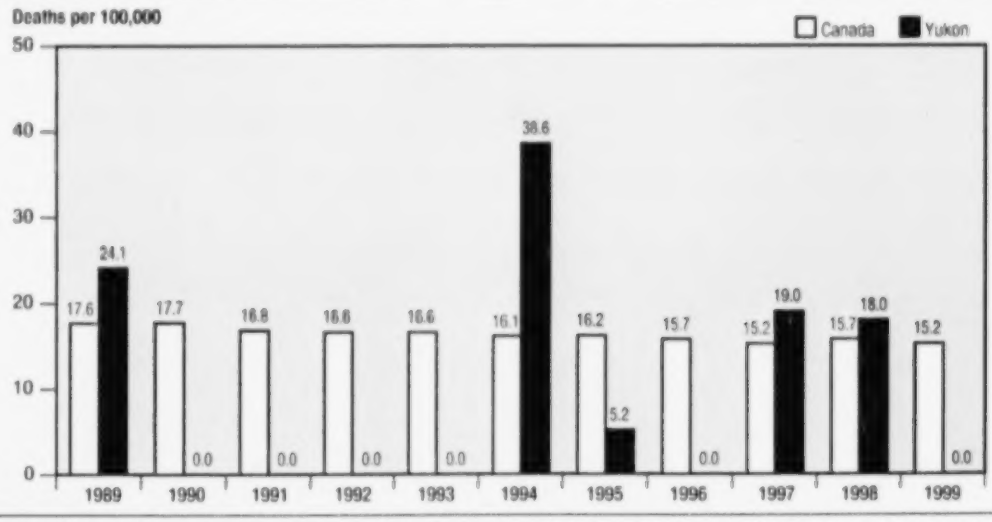


FIGURE 5a.4.3.
Females



Source (Figures 5a.4.1-3): Statistics Canada, Death database and population estimates. CANSIM no. 01020026, ICD-9 153-154. Mortality rate, age-standardized rate per 100,000 population.

5a.5 *Mortality rates for Acute Myocardial Infarction (AMI)*

The mortality rate for AMI across Canada has declined by about one-third for both males and females from 1989 to 1999. This may reflect a choice of healthier lifestyle (diet, exercise, reduction in smoking) by many Canadians during this period. The declining mortality rate may also be related to improvements in the early diagnosis and management of coronary artery disease, leading to fewer deaths from this cause.

Yukon rates over the same years fluctuate too widely to determine trends; these fluctuations may reflect the number of deaths due to AMI in Yukon and the Yukon's population, both of which are small relative to larger jurisdictions and to Canada as a whole.

FIGURES 5a.5.1-3. Mortality rates for AMI, Canada and Yukon, 1989-1999

FIGURE 5a.5.1.
Both sexes

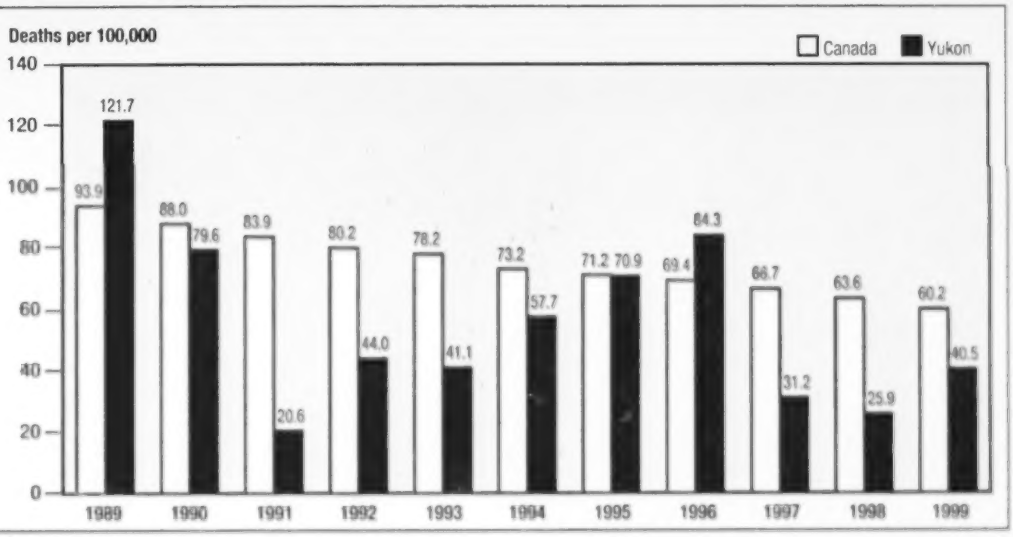


FIGURE 5a.5.2.
Males

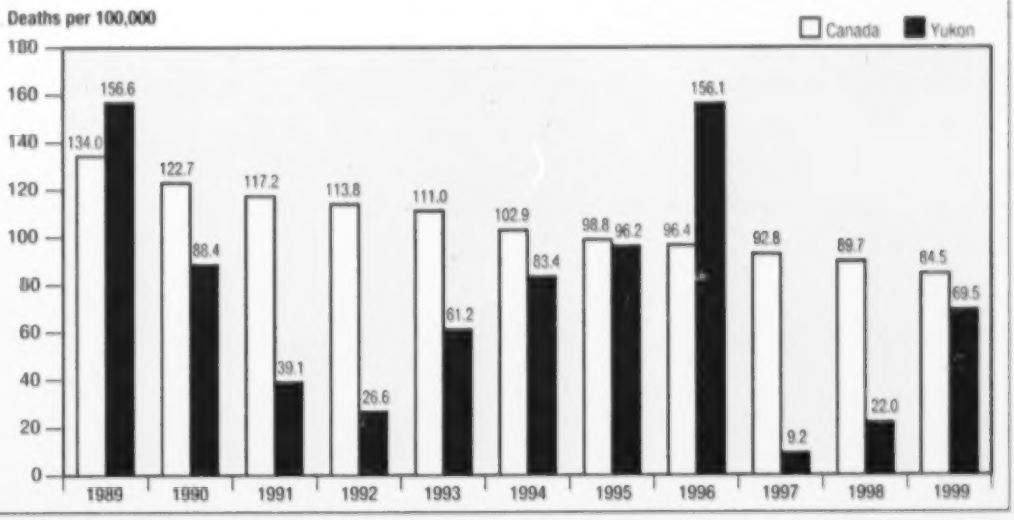
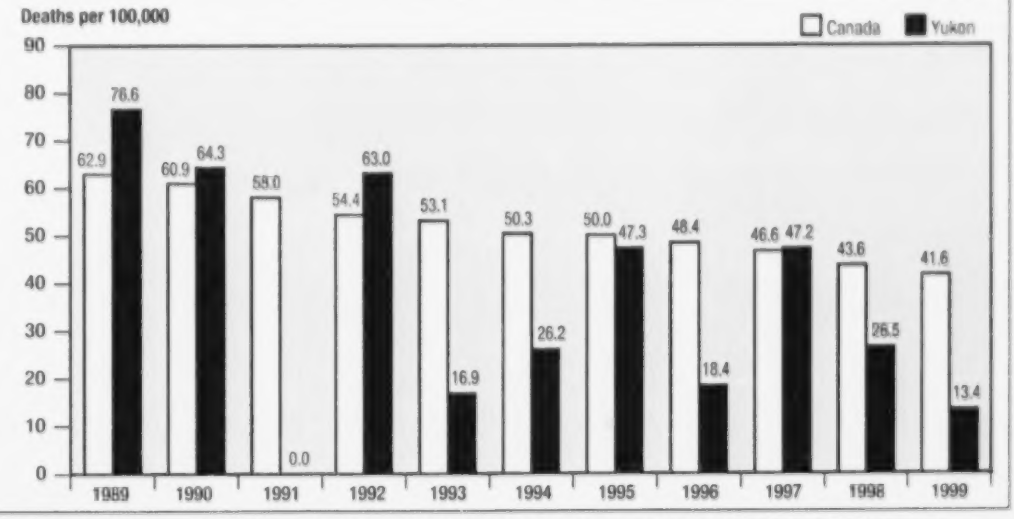


FIGURE 5a.5.3.
Females



Source (Figures 5a.5.1-3): Statistics Canada, Death database and population estimates. CANSIM no. 01020026, ICD-9 410. Mortality rate, age-standardized rate per 100,000 population

5a.6 *Mortality rates for stroke*

The Canadian data indicate a decline in stroke mortality of about 10% for both males and females from 1989 to 1999.

Over the same period of time, Yukon mortality rates for stroke, as the rates for cancer and AMI, fluctuate too widely to determine trends.

FIGURES 5a.6.1-3. Mortality rates for all stroke, Canada and Yukon, 1989-1999

FIGURE 5a.6.1.
Both sexes

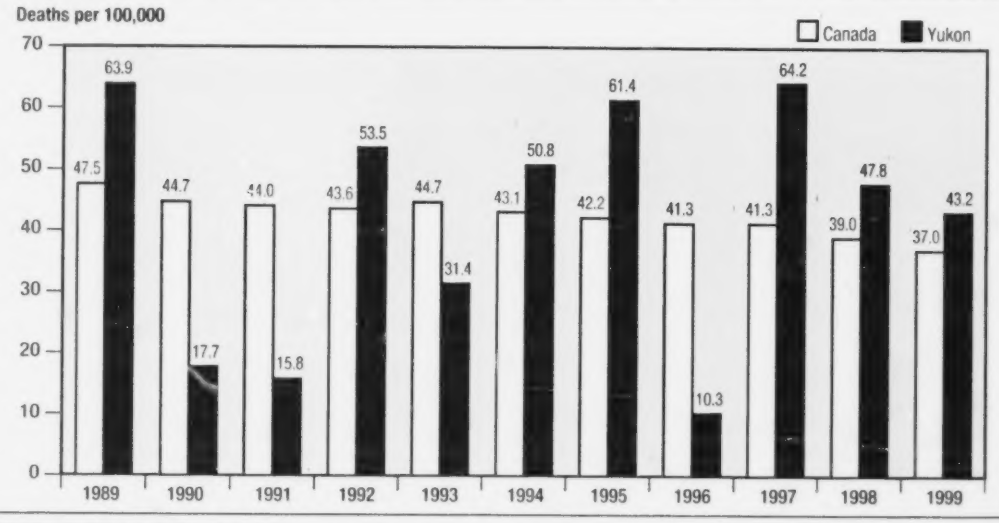


FIGURE 5a.6.2.
Males

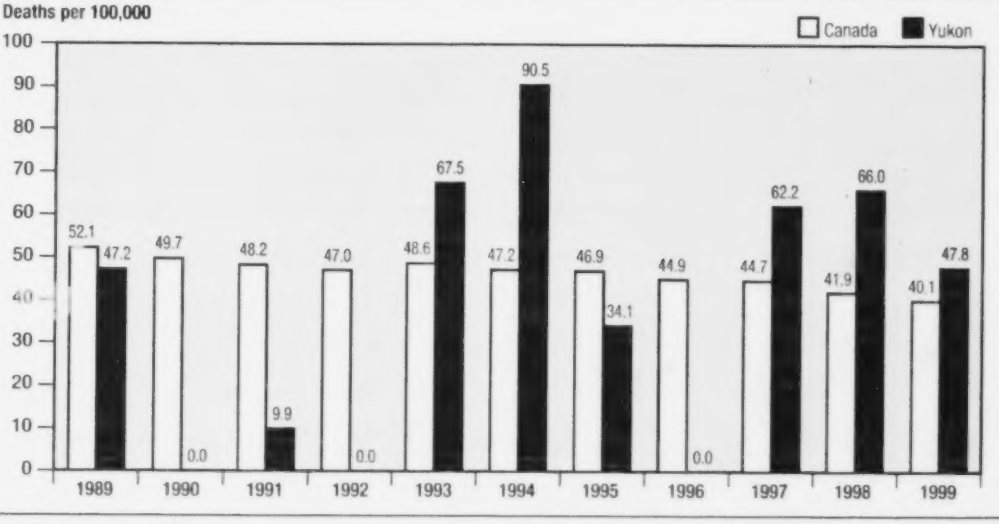
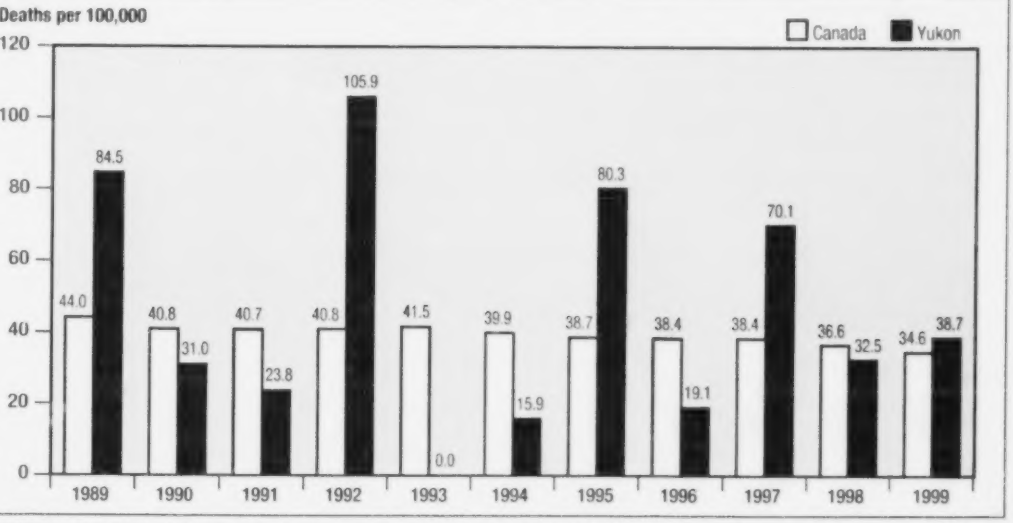


FIGURE 5a.6.3.
Females



Source (Figures 5a.6.1-3): Statistics Canada, Death database and population estimates. CANSIM no. 01020026, ICD-9 430-432, 434, 436. Mortality rate, age-standardized rate per 100,000 population.

5b. Five-year relative survival rates for lung, prostate, breast and colorectal cancer

5c. 30-day acute myocardial infarction mortality rate

5d. 30-day stroke mortality rate

5e. 365-day survival rate for acute myocardial infarction

5f. 180-day survival rate for stroke

Due to Yukon's small population, survival and mortality rates for these conditions are too low to report in a reliable manner. (Sources: Statistics Canada and the Canadian Institute of Health Information)

6. IMPROVED QUALITY OF LIFE

6a. Total hip replacement rate

DEFINITION

Age-standardized rate of total unilateral or bilateral hip replacement surgery performed on in-patients in acute care hospitals.

RATIONALE

The intended outcome of most elective surgery is improved health-related quality of life. About 94% of persons receiving a hip replacement will have significant improvement in overall functioning for daily activities, with reduced pain and stiffness in the affected joint.

6b. Total knee replacement rate

DEFINITION

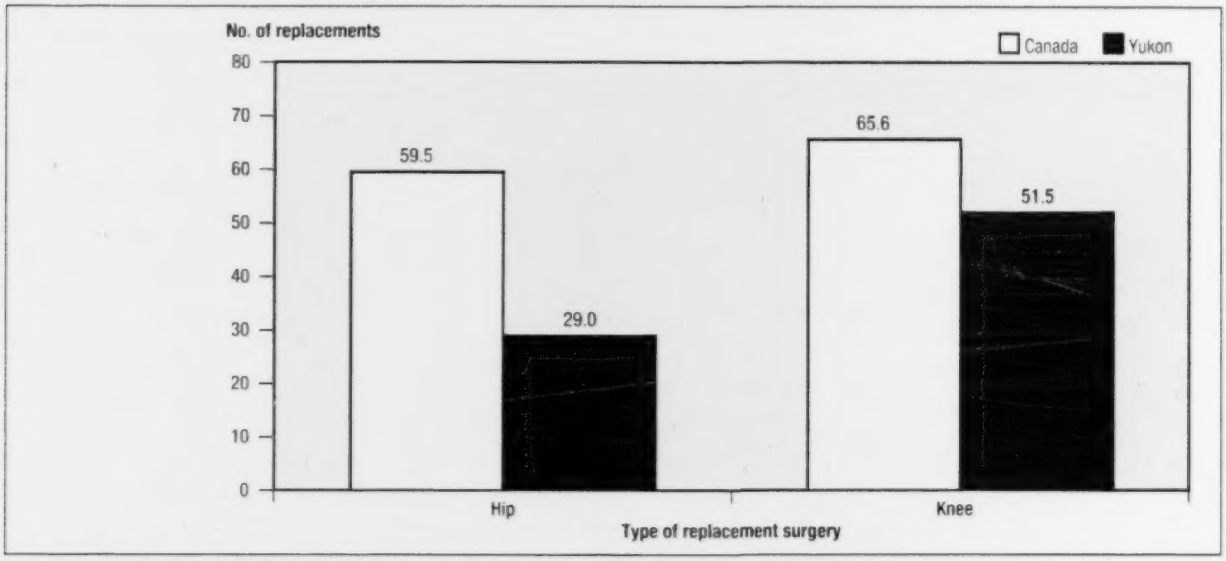
Age-standardized rate of total unilateral or bilateral or bilateral knee replacement surgery performed on in-patients in acute care hospitals.

RATIONALE

See 6a.

Figure 6a.b indicates rates of total hip and knee replacements for the year 1999/2000, the most recent year for which data are available. All joint replacement surgeries are performed in acute care hospitals outside Yukon.

FIGURE 6a.b. Total hip and knee replacement rates per 100,000 (age-standardized), 1999-2000



Source (Figure 6a.b): Canadian Institute for Health Information

7. REDUCED BURDEN OF DISEASE, ILLNESS AND INJURY

7a. Incidence rates for lung, prostate, breast, and colorectal cancer

DEFINITION

The number of newly diagnosed primary cancer cases in a given year for specific sites per 100,000 that would have occurred in the standard population if the actual age-specific rates observed in a given population had occurred in the standard population.

RATIONALE

Age-standardized incidence rates measure the appearance of new cancers. This incidence rate is influenced by two main groups of factors: (1) the underlying rate of cancer incidence, which in turn reflects, in part, the prevalence of risk factors such as smoking, and hence the success of primary prevention efforts; and (2) the rate of detection and diagnosis of cancers, which in turn can be influenced by the intensity and effectiveness of cancer-screening programs.

From the viewpoint of interpreting this indicator, these two factors work in opposite directions. For example, an increase in measured cancer incidence could reflect either a deterioration in healthy lifestyle or an improvement in screening. However, the impact of improved screening is unlikely to carry on for a long period of time so that, generally, a declining incidence of cancer suggests a positive change in population health.

7a.1 Incidence rates for lung cancer

There appears to be a slight overall decline in the incidence rates of lung cancer among Canadian men over the period 1992 to 2002. By contrast, incidence rates for lung cancer among Canadian women are rising steadily, probably reflecting an increase in the number of females who smoke. Yukon rates for incidence, like mortality rates for lung cancer, fluctuate too widely to accurately determine trends.

FIGURES 7a.1.1-3. Incidence rates for lung cancer, Canada and Yukon, 1987-1997

FIGURE 7a.1.1.
Both sexes

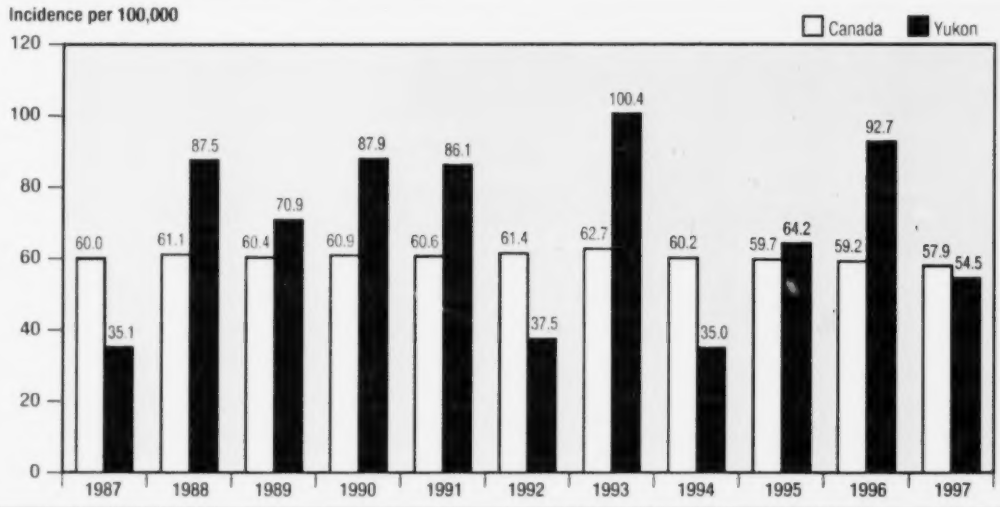
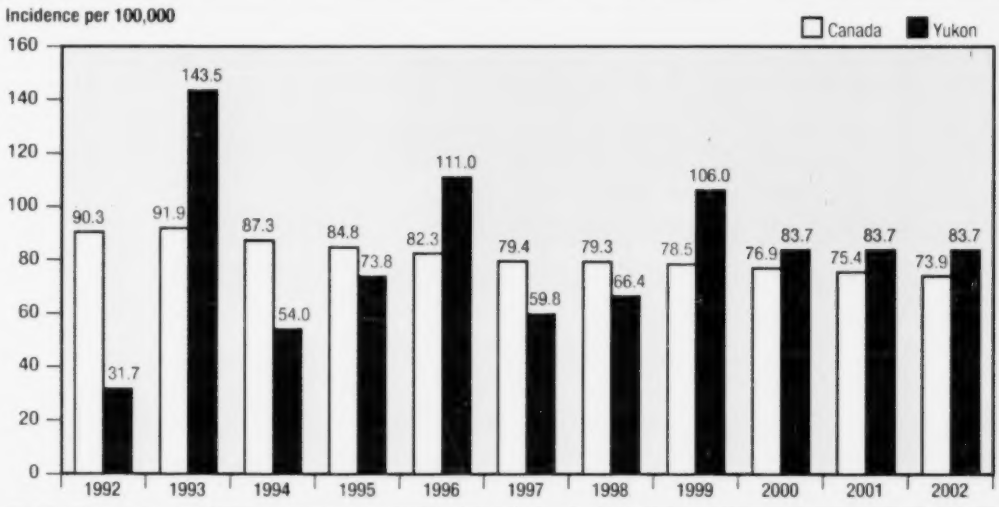
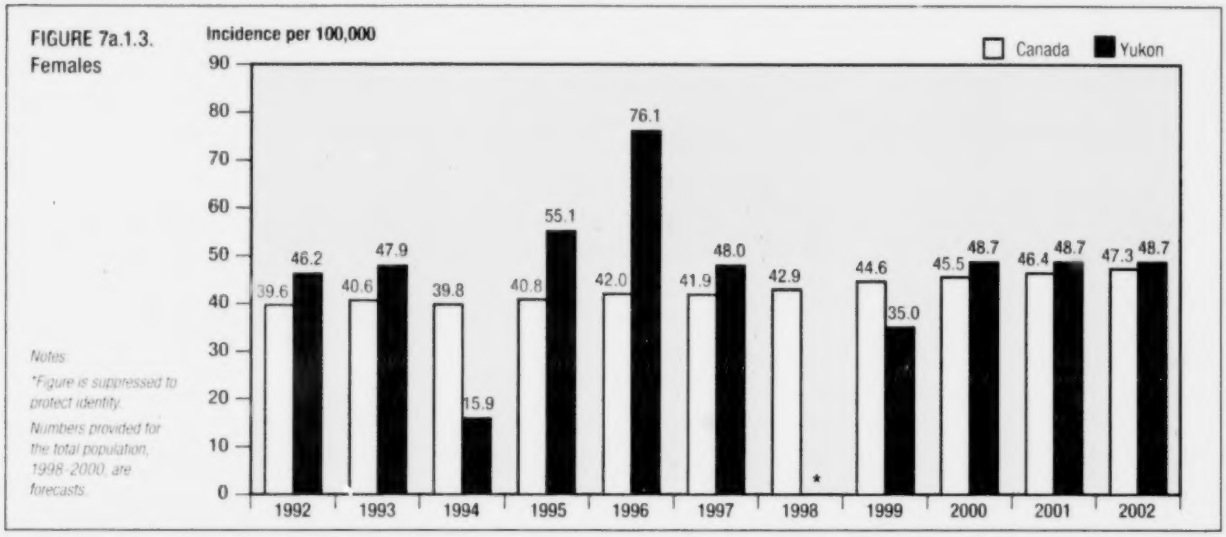


FIGURE 7a.1.2.
Males



Note:
Numbers provided for the total population, 1998-2000, are forecasts.

Source (Figures 7a.1.1-2): Statistics Canada, CANSIM no. 01030004, ICD-9 162, Cancer incidence rate, age-standardized rate per 100,000 population, By sex and selected sites of cancer, Canada and territories.

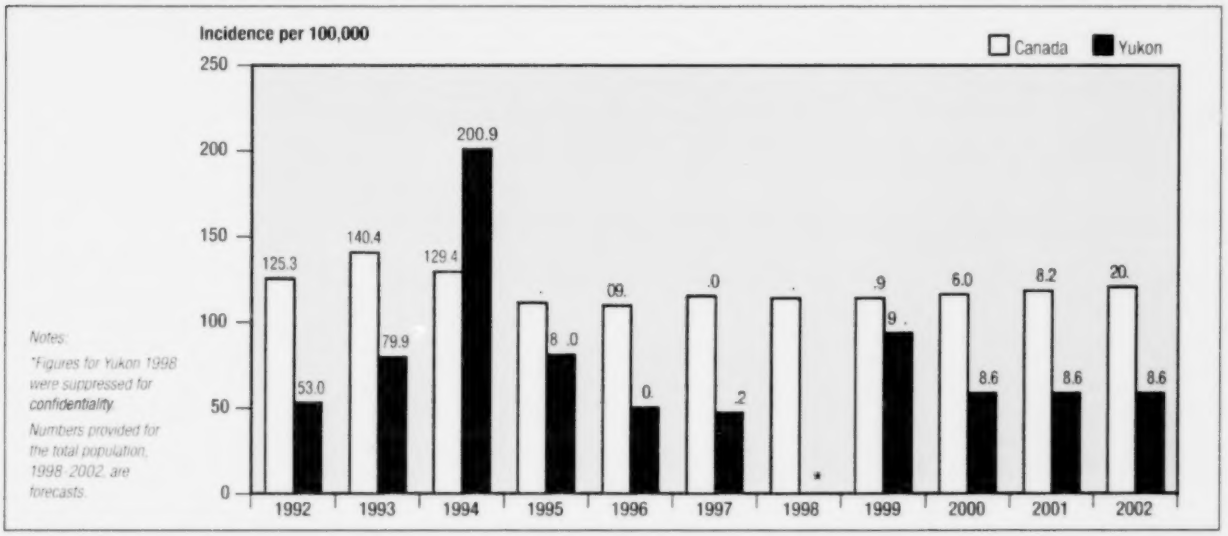


Source (Figures 7a.1.3): Statistics Canada, CANSIM no. 01030004, ICD-9 162: Cancer incidence rate, age-standardized rate per 100,000 population. By sex and selected sites of cancer, Canada and territories.

7a.2 Incidence rates for prostate cancer

The data for Canada indicate a relatively steady incidence rate for prostate cancer since about 1995. Yukon data fluctuate too widely over the same period to determine trends. Note that data for 1998–2002 are forecasts. As well, data for 1998 have been suppressed; Statistics Canada suppresses data when the actual number of cases is less than five for reasons related to confidentiality.

FIGURE 7a.2. Incidence rates for prostrate cancer, males, Canada and Yukon, 1992-2002

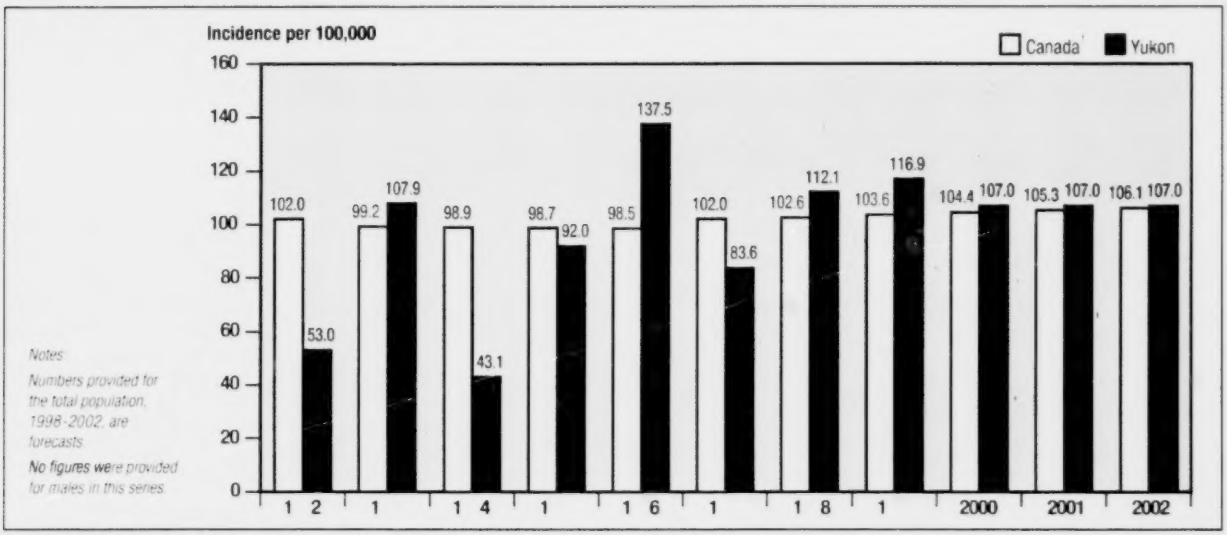


Source (Figures 7a.2): Statistics Canada, CANSIM no. 01030004, ICD-9 174: Cancer incidence rate, age-standardized rate per 100,000 population. By sex and selected sites of cancer, Canada and territories.

7a.3 Incidence rates for breast cancer

The data for both Canada and Yukon indicate relatively stable and equivalent incidence rates for breast cancer over the past 5 years. Note that the rates for 1998–2002 are forecasts.

FIGURE 7a.3. Incidence rates for breast cancer, females, Canada and Yukon, 1992-2002



Source (Figure 7a.3): Statistics Canada, CANSIM no. 01030004, ICD-9 174, Cancer incidence rate, age-standardized rate per 100,000 population, By sex and selected sites of cancer, Canada and territories.

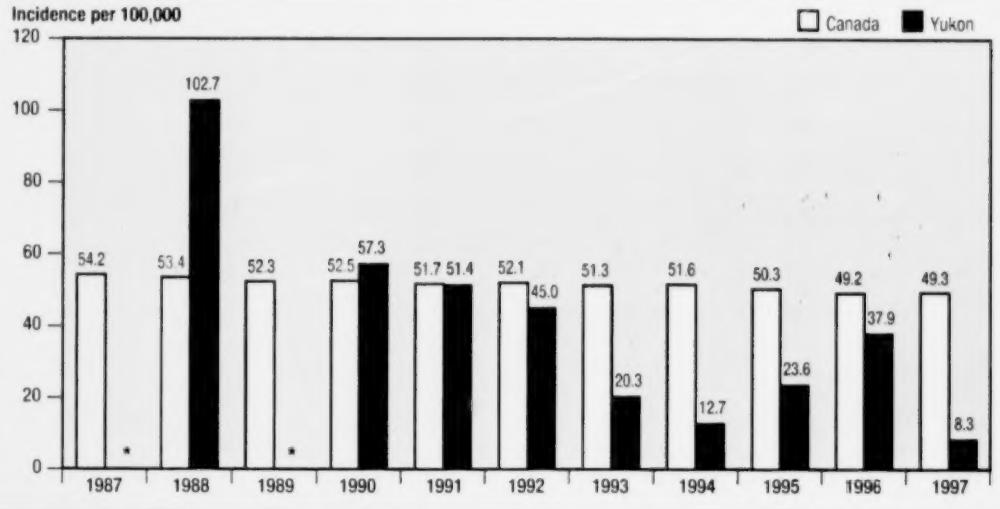
7a.4 Incidence rates for colorectal cancer

The data for Canada indicate a relatively steady incidence rate for colorectal cancer in the total population (Figure 7a.4.1) over the period 1987 to 1997. Note that data in Figures 7a.4.2 and 7a.4.3, which present rates for men and women, respectively, include forecasts for the most recent 5-year period.

Yukon data fluctuate too widely to determine trends. Again, there is suppression of Yukon data in years where the actual numbers are too low to report.

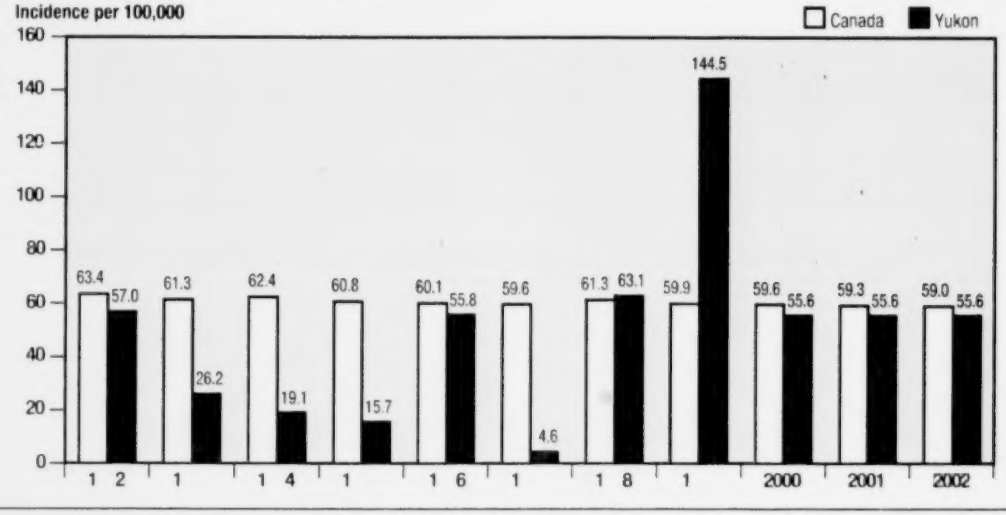
FIGURES 7a.4.1-3. Incidence rates for colorectal cancer, Canada and Yukon, 1987-1997

FIGURE 7a.4.1.
Both sexes



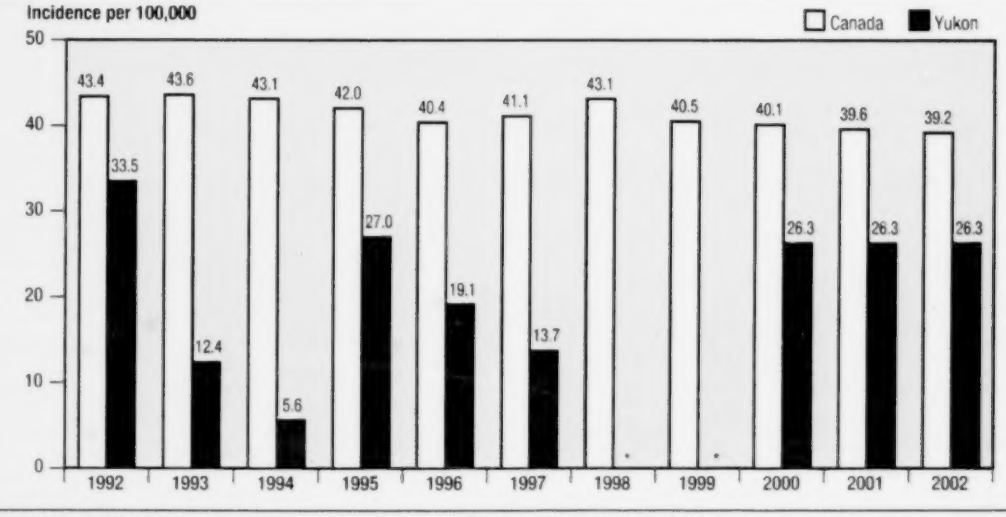
Notes:
*Figures are suppressed to protect confidentiality.
Numbers provided for the total population, as estimates, 1998-2002, were not available.

FIGURE 7a.4.2.
Males



Note:
Numbers provided for the male population, 1998-2002, are forecasts.

FIGURE 7a.4.3.
Females



Notes:
*Figures are suppressed to protect confidentiality.
Numbers provided for the female population, 1998-2000, are forecasts.

Source (Figure 7a.4.1-3): Statistics Canada, CANSIM no. 01030004, ICD-9 153-154, Cancer incidence rate, age-standardized rate per 100,000 population, By sex and selected sites of cancer, Canada and territories.

7b. Potential years of life lost due to lung, prostate, breast and colorectal cancer, AMI, stroke, suicide and unintentional injury

DEFINITION

Potential years of life lost (PYLL) is the number of years of life "lost" when a person dies "prematurely" from any cause—defined as dying before age 75. A person dying at age 25, for example, has lost 50 potential years of life.

PYLLs can also be estimated for a specific cause, in which case the indicator measures the number of years of life "lost" when a person dies before age 75 due to a cause like injury, cancer, AMI or stroke.

Illnesses or accidents that kill young people obviously result in more PYLL then those that occur in older people.

RATIONALE

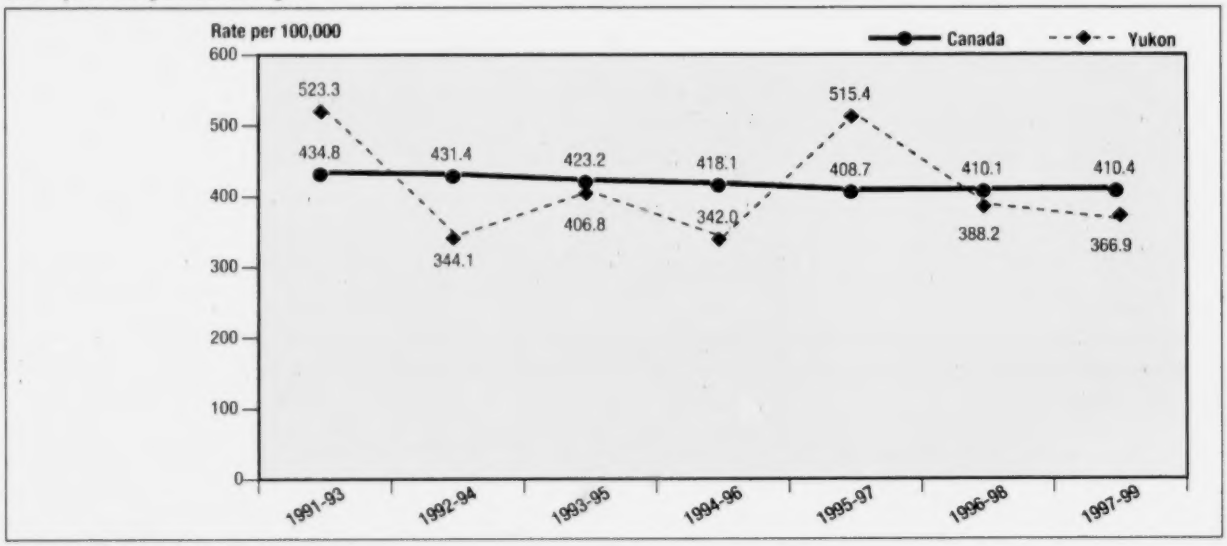
The most widely used indicator of population health based on mortality rates is life expectancy. It measures *average* expectation of life, and therefore reflects both changing lengths of life for the very old, and changes in mortality rates for the non-elderly. PYLL is a complementary indicator focussing on mortality among the non-elderly (persons under age 75). It reflects the level of success in preventing premature (and therefore presumably preventable or postponable) loss of life, with its consequent loss of social and economic productivity. It is an overall indicator of population health and well-being, and effectiveness of preventive programs.

Note that 3-year rolling averages have been used to portray the PYLL data in Section 7b. Fluctuations in the Yukon data for some disease conditions make it difficult to determine trends.

7b.1 Potential years of life lost due to lung cancer

PYLL due to lung cancer among Canadians shows a slight downward trend, ranging from 434.8 years in 1991-93 to 410.4 years in 1997-99. During the same period of time, PYLL due to lung cancer among Yukoners has fluctuated from a high of 523.3 years in 1991-93 to a low of 342.0 years in 1994-96.

FIGURE 7b.1. Potential years of life lost (PYLL), lung cancer, both sexes, Canada and Yukon. Rate per 100,000 population aged 0 to 74. Three-year rolling annual averages

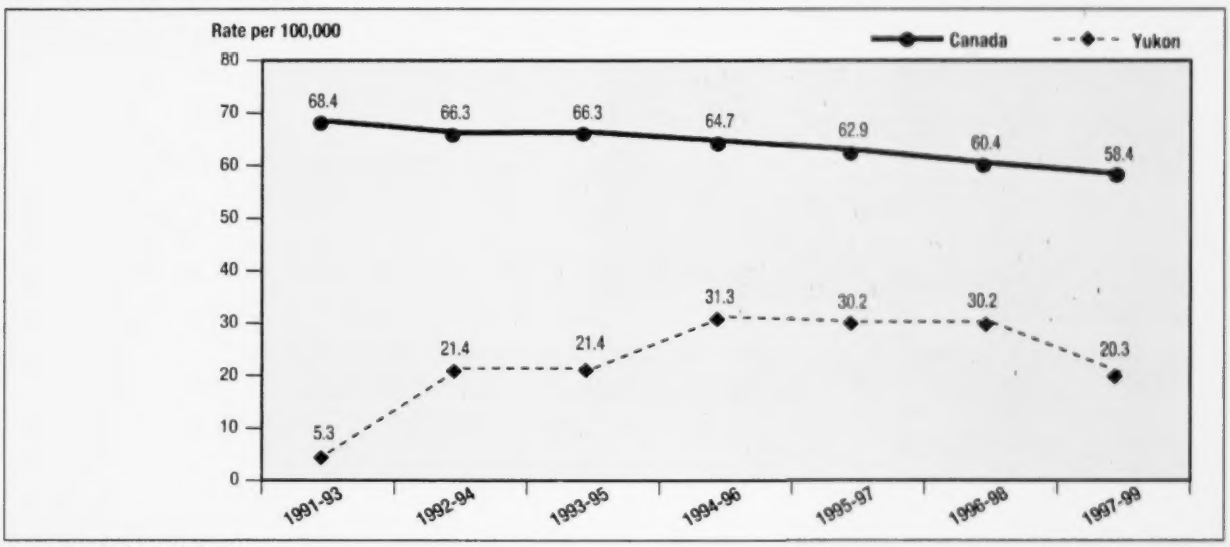


Source (Figure 7b.1): Statistics Canada

7b.2 Potential years of life lost due to prostate cancer

PYLL due to prostate cancer for Canadian males shows a steady decline from a high of 68.4 years in 1991-93 to a low of 58.4 years in 1997-99. During this same period of time, Yukon rates fluctuated over time with a high of 31.3 years in 1994-96 and a low of 5.3 years in 1991-93.

FIGURE 7b.2. Potential years of life lost (PYLL), prostate cancer, males, Canada and Yukon. Rate per 100,000 population aged 0 to 74. Three-year rolling annual averages

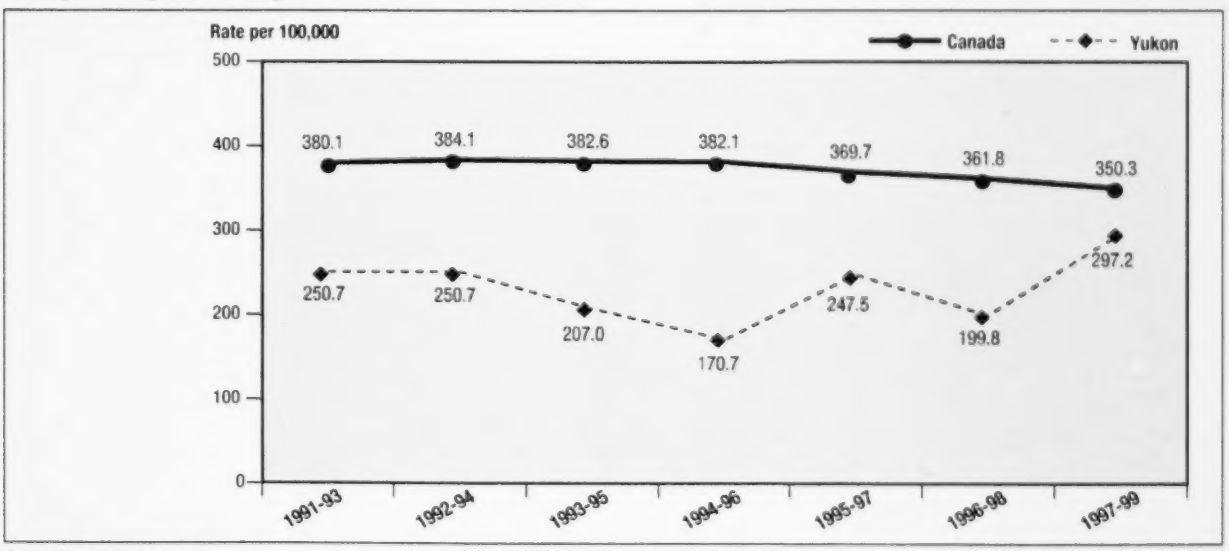


Source (Figure 7b.2): Statistics Canada

7b.3 Potential years of life lost due to breast cancer

PYLL due to breast cancer among Canadian women shows a slight downward trend from a high of 384.1 years in 1992-94 to a low of 350.3 years in 1997-99. PYLL for Yukon women during the same period showed some variability from year to year, with a low of 170.7 years in 1994-96 to a high of 297.2 years in 1997-99.

FIGURE 7b.3. Potential years of life lost (PYLL), breast cancer, females, Canada and Yukon. Rate per 100,000 population aged 0 to 74. Three-year rolling annual averages

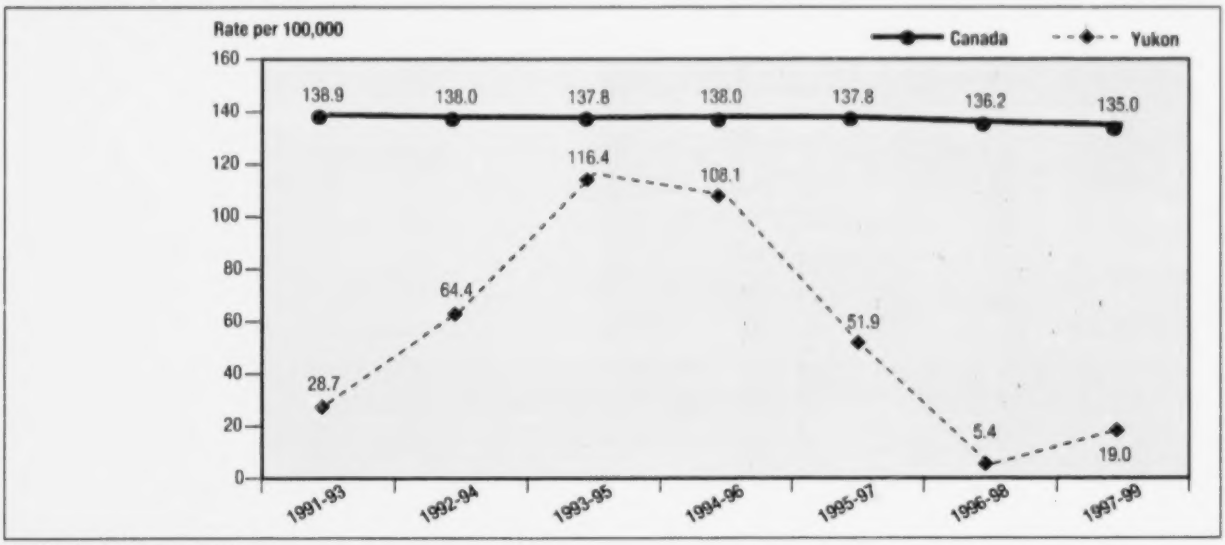


Source (Figure 7b.3): Statistics Canada

7b.4 Potential years of life lost due to colorectal cancer

PYLL due to colorectal cancer for Canadians is roughly constant from 1991-93 to 1997-99, ranging from 138.9 to 135.0 years. During this same period of time, these data on Yukoners fluctuate from a high of 116.4 years in 1993-95 to a low of 5.4 years in 1996-98.

FIGURE 7b.4. Potential years of life lost (PYLL), colorectal cancer, both sexes, Canada and Yukon. Rate per 100,000 population aged 0 to 74. Three-year rolling annual averages

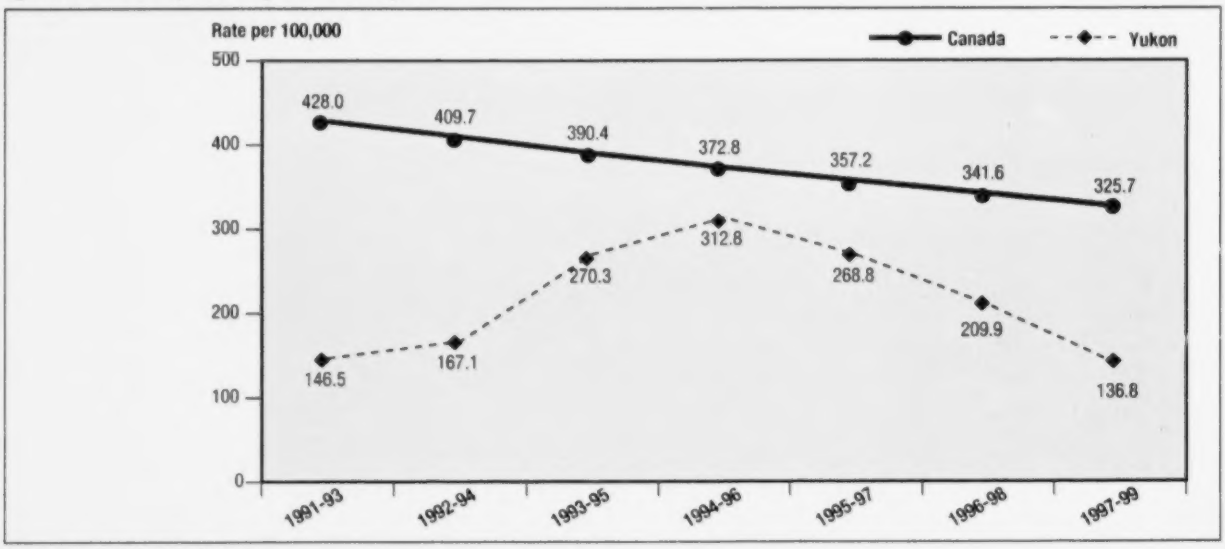


Source (Figure 7b.4): Statistics Canada

7b.5 Potential years of life lost due to AMI

PYLL due to AMI shows a steadily decline from 1991-1999 for Canadians, with a high of 428.0 years in 1991-93 to a low of 325.7 years in 1997-99. During the same period, PYLL due to AMI for Yukoners fluctuated from a high of 312.8 years to a low of 136.8 years.

FIGURE 7b.5. Potential years of life lost (PYLL), acute myocardial infarction (AMI), both sexes, Canada and Yukon. Rate per 100,000 population aged 0 to 74. Three-year rolling annual averages

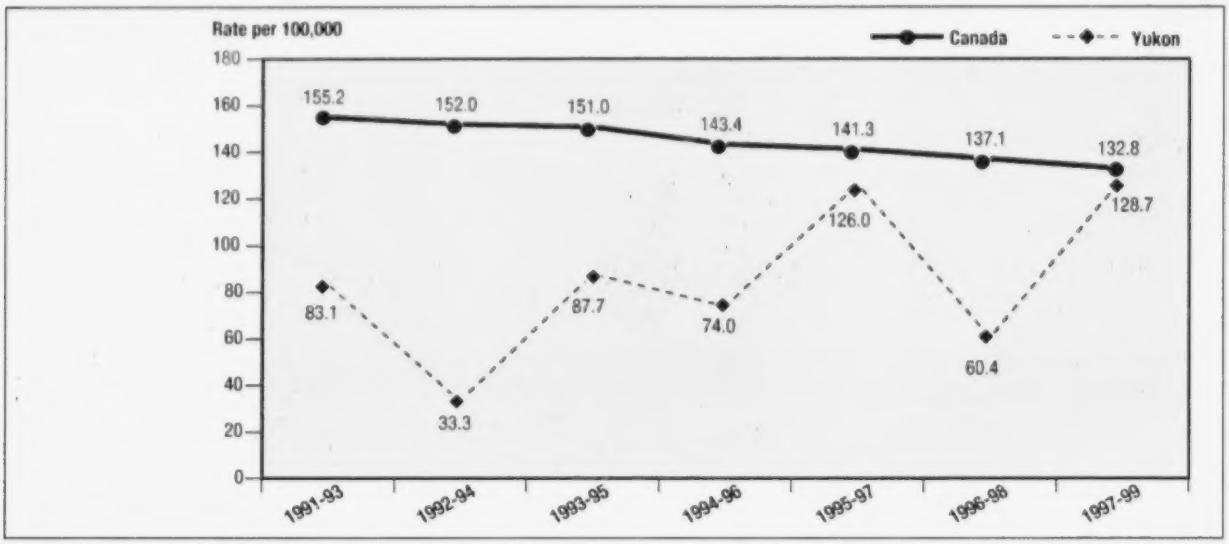


Source (Figure 7b.5): Statistics Canada

7b.6 Potential years of life lost due to strokes

PYLL due to stroke among Canadians decline from 155.2 to 132.8 years from 1991-93 to 1997-99. During the same period, Yukon statistics fluctuated from a low of 33.3 years to a higher of 128.7 years in 1997-99.

FIGURE 7b.6. Potential years of life lost (PYLL), all stroke, both sexes, Canada and Yukon. Rate per 100,000 population aged 0 to 74. Three-year rolling annual averages

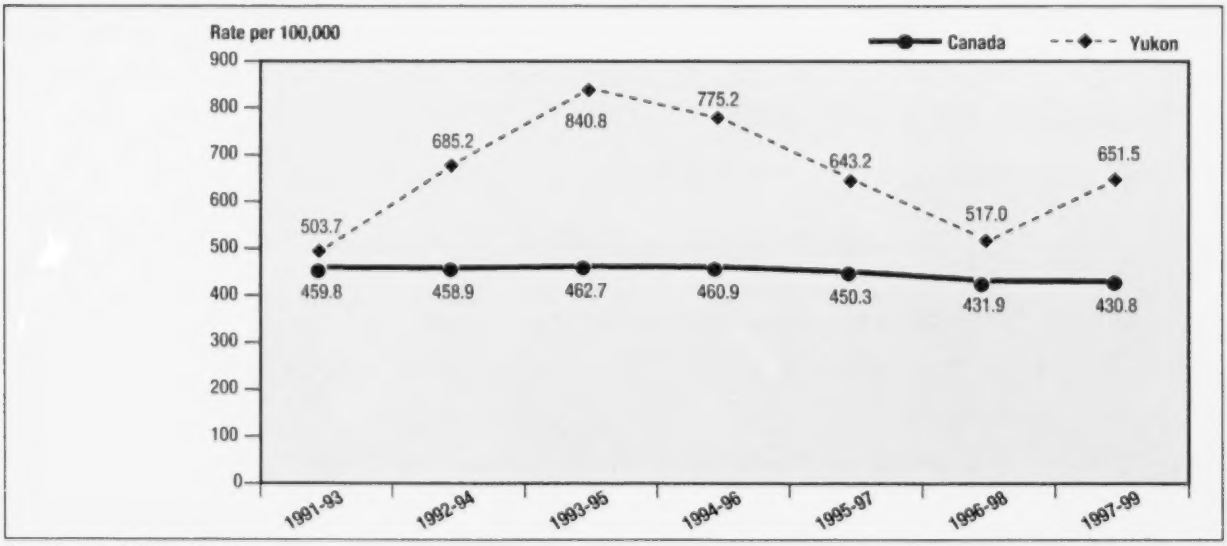


Source (Figure 7b.6): Statistics Canada

7b.7 Potential years of life lost due to suicide

PYLL due to suicide for Canadians shows a slight decline from 1993-95 to 1997-99, from 462.7 to 430.8 years. During this same period, Yukon data fluctuated, with high and low rates of 503.7 and 840.8 years in 1991-93 and 1993-95, respectively.

FIGURE 7b.7. Potential years of life lost (PYLL), suicides, both sexes, Canada and Yukon. Rate per 100,000 population aged 0 to 74. Three-year rolling annual averages

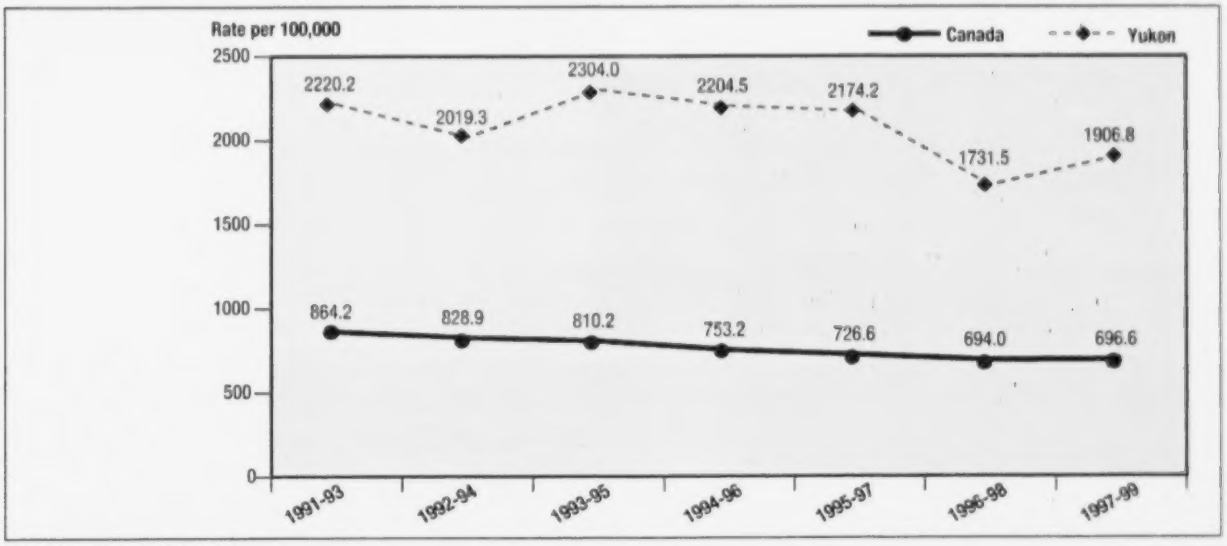


Source (Figure 7b.7): Statistics Canada

7b.8 Potential years of life lost due to unintentional injuries

PYLL due to accidents and unintentional injuries among Canadians declined from 864.2 years for 1991-93 to 694.0 years in 1996-98. During the same period, PYLL due to unintentional injuries among Yukoners ranged from a low of 1731.5 years to a high of 2304.0 years

FIGURE 7b.8. Potential years of life lost (PYLL), unintentional injuries, both sexes, Canada and Yukon. Rate per 100,000 population aged 0 to 74. Three-year rolling annual averages



Source (Figure 7b.8): Statistics Canada

As documented in previous Health Status Reports, suicides and unintentional injuries take a large toll among Yukoners.

7c. Incidence rates of vaccine-preventable diseases

7c(i). *Invasive meningococcal disease incidence rate (age under 20 years)*

DEFINITION

The rate of new cases reported by year, age and serogroup.

A confirmed case is defined as invasive disease with laboratory confirmation of infection.

RATIONALE

A new generation of very effective protein conjugate vaccines is now available against Group C disease which can be given to infants as young as two months of age. Most cases of this disease occur in the 0-19 age group, and immunization programs generally focus on this group.

There have been no cases of invasive meningococcal disease among persons 0 to 19 years of age in Yukon during the years 1990 to 1999 (Source: Health Canada).

7c(ii). *Measles*

DEFINITION

The rate of new cases reported by year.

A confirmed case is defined as laboratory confirmation of infection in the absence of recent immunization with measles-containing vaccine.

RATIONALE

All provinces and territories adopted the goal of measles elimination by 2000. In the absence of global eradication, maintaining measles elimination requires ongoing, enhanced

surveillance and continued high immunization coverage rates.

Between 1987 and 1999, a total of six cases of measles were reported with no cases of measles reported in 10 of the 13 years (Source: Health Canada). Only 2 cases, both occurring in 1996, were IgM antibody-positive (Source: Yukon Communicable Disease Control). This gives rise to an incidence rate in this year of 6.26 per 100,000.

7c(iii). *Haemophilus influenzae b (invasive) (Hib) disease*

DEFINITION

The rate of new cases reported by year in children under 5.

A confirmed case is defined as invasive disease with laboratory confirmation of infection. Invasive disease includes meningitis, bacteraemia, epiglottitis, pneumonia, pericarditis, septic arthritis, or empyema.

RATIONALE

Hib was the most common cause of bacterial meningitis and a leading cause of other serious invasive infections in children prior to the introduction of Hib vaccines. Vaccine preventable cases are now rare.

There were 3 cases of invasive Hib disease in Yukon children under age 5 years between 1990 and 1999. No cases were reported from 1993 to 1999 (Source: Health Canada).

7d. Prevalence of diabetes

DEFINITION

The number of individuals in the population aged 19+ with the disease at a specific point in time.

RATIONALE

The period prevalence of diabetes gives an idea of the importance or burden of this disease at a given time and is widely used in public health monitoring and planning.

No data will be presented for Yukon, as comprehensive data on the prevalence of diabetes in Yukon through the National Diabetes Surveillance System (NDSS) are available only for fiscal year 2000. The prevalence rates in Yukon will be reported in subsequent years as data becomes available which will allow for comparisons across years.

QUALITY OF SERVICE

Indicators in this category reflect several aspects of health service quality (e.g., appropriateness, effectiveness, accessibility, acceptability). The indicators do not address all dimensions of service quality (e.g., efficiency, safety), primarily due to the limitations of existing data.

8. WAITING TIMES FOR KEY DIAGNOSTIC AND TREATMENT SERVICES

Yukoners undergo cardiac surgery, hip and knee replacement surgery, and radiation therapy in hospitals located in other jurisdictions. Administrative data captured to provide for reciprocal payment for these procedures are not sufficient to calculate waiting times.

9. PATIENT SATISFACTION

DEFINITION

Percentages of the adult population who rate themselves as either very satisfied or somewhat satisfied with the way the following services were provided: (a) overall health care services received, (b) services received in a hospital, (c) services received from a family doctor or other physician, and (d) community-based services received.

RATIONALE

These indicators apply to individuals who have received health care services over a 12-month reference period. The individual's assessment of the quality of care received and the satisfaction with the services are measured. The indicators apply to individuals 15 years old and older living in private households.

The results present the opinions of Yukoners and of persons living elsewhere in Canada included in the Canadian Community Health Survey (CCHS) carried out in 2000–2001.

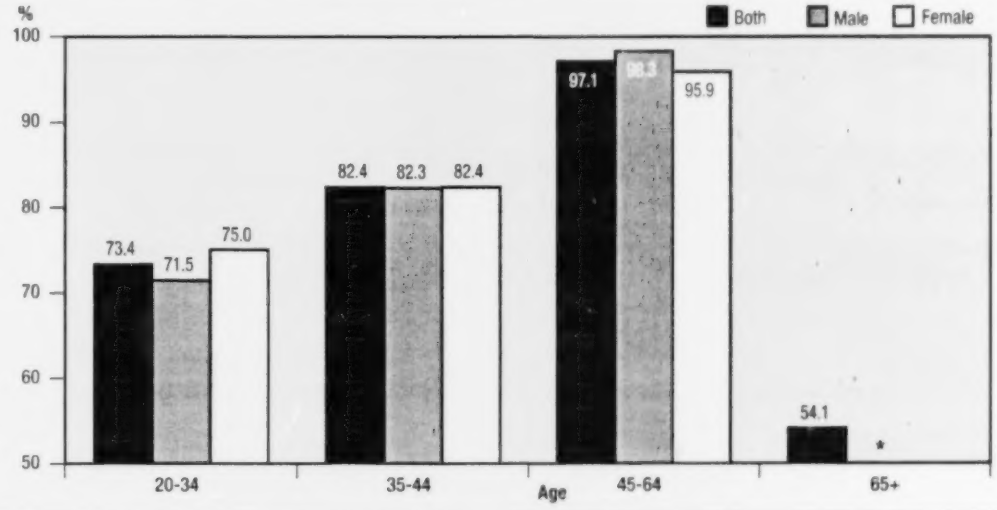
Please note that no data are available for Yukon residents in the 15-19 year age group. Additionally, several of the Yukon bar graphs show incomplete data for other age groups since figures are too unreliable to be reported due to the small numbers of persons surveyed in a particular category.

9a. Patient satisfaction with overall health care services received (very or somewhat satisfied)

The Canada data show a remarkably stable level of patient satisfaction ranging from 81.4% to 89.6% across all age groups and both sexes. Among Yukoners, patient satisfaction increases steadily for both males and females from age 20–34 to 45–64. It is difficult to make any conclusions on seniors' satisfaction with health care services due to missing data for all three indicators of satisfaction.

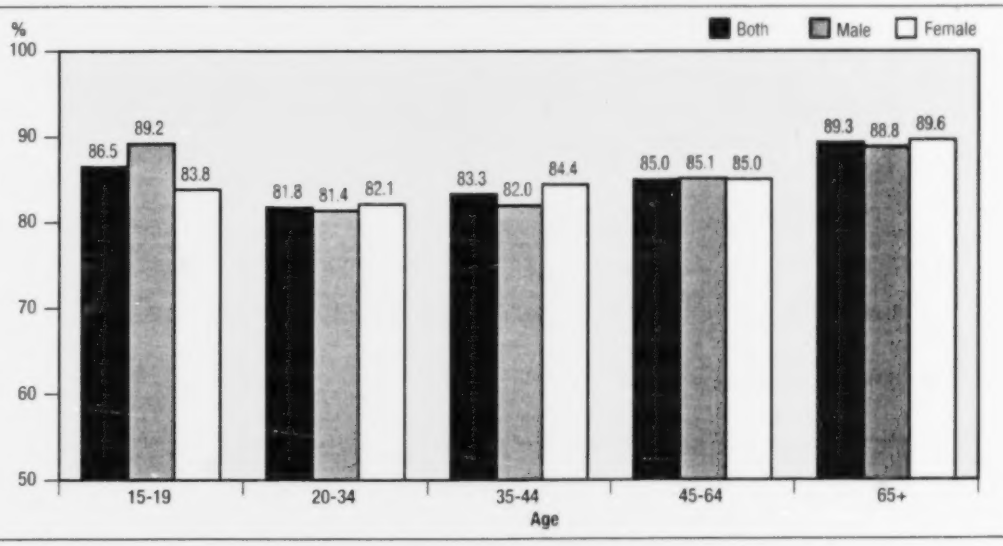
FIGURES 9a.1-2. Patient satisfaction with any health care service received in past 12 months. Percent reporting very or somewhat satisfied

FIGURE 9a.1. Yukon



Note:
**Figures for males and females in this age category are too unreliable to be reported separately.*

FIGURE 9a.2. Canada



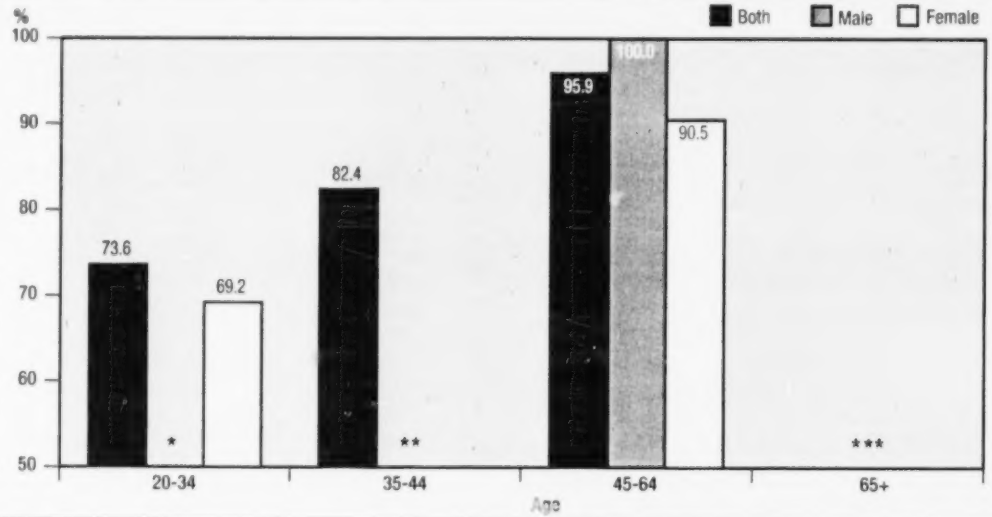
Source (Figures 9a.1-2): Statistics Canada

9b. Patient satisfaction with services received in a hospital (very or somewhat satisfied)

Complete Yukon data on satisfaction with recent hospital care are available only for the 45-64 year category. Between 90.5 and 100% of patients in this age group appeared to be very or somewhat satisfied. Among Canadians, patient satisfaction among males and females increased steadily with age, but reached a high of 88.3% among females 65 years and older.

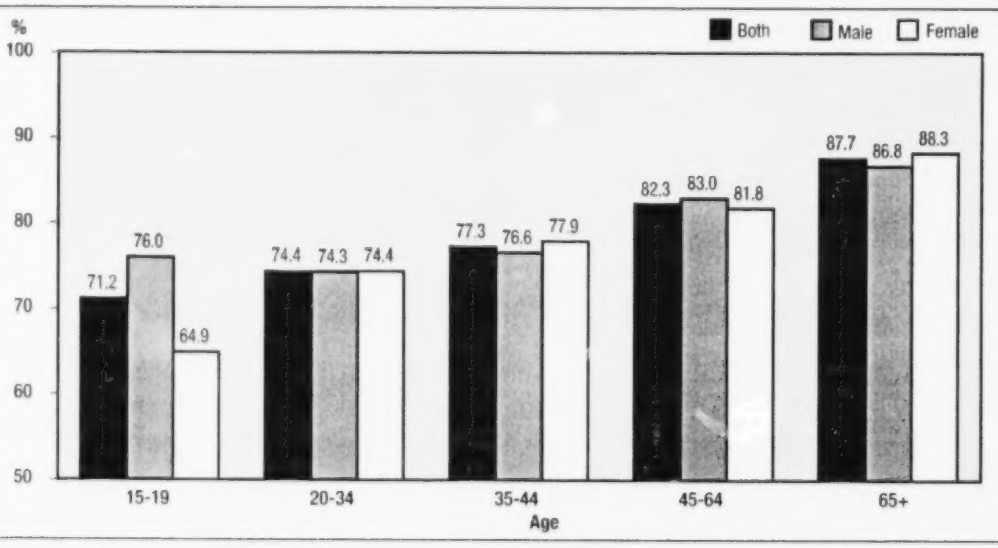
FIGURES 9b.1-2. Patient satisfaction with most recent hospital care received in past 12 months. Percent reporting very or somewhat satisfied

FIGURE 9b.1. Yukon



Notes
**Figures for males in this age category are too unreliable to be reported.*
***Figures for males and females in this age category are too unreliable to be reported separately.*
****Figures for the 65+ age category are too unreliable to be reported.*

FIGURE 9b.2. Canada



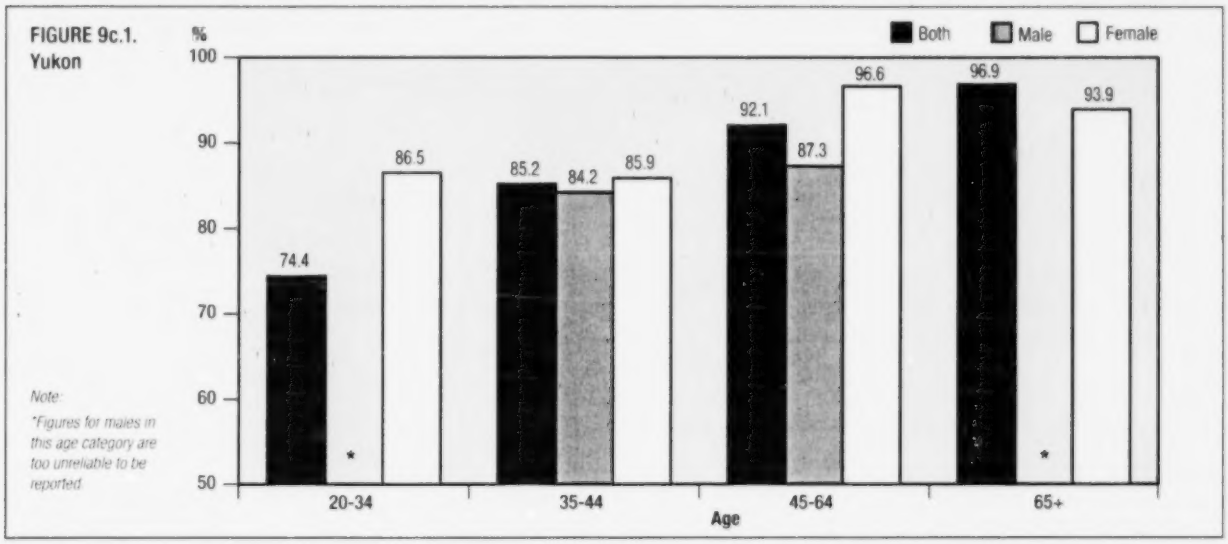
Source (Figures 9b.1-2): Statistics Canada

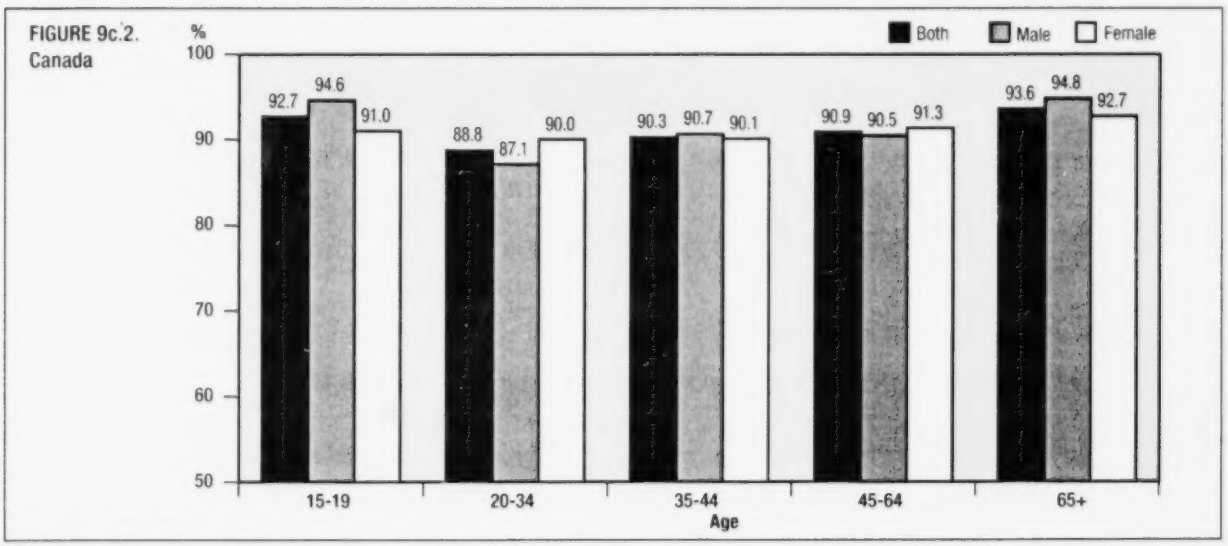
9c. Patient satisfaction with services received from a family doctor or other physician (very or somewhat satisfied)

Among Yukoners, patient satisfaction with most recent physician care appears to increase slightly with age, with over 90% of persons (both sexes) expressing satisfaction in age groups 45–64 and 65 years and older.

Among other Canadians, the percent expressing satisfaction was in the high 80s to low 90s across all age groups.

FIGURES 9c.1-2. Patient satisfaction with most recent family doctor or physician care, Yukon. Percent reporting very or somewhat satisfied





Source (Figures 9c.1-2): Statistics Canada

9d. Patient satisfaction with most recent community-based health services received (very or somewhat satisfied)

Statistics Canada advises that all data on patient satisfaction with community-based health care in Yukon for the 35-44 and 65+ age groups are too unreliable to report. As well, some data in the 20-34 and 45-64 age groups are too unreliable to report. Given these significant gaps in data, Yukon will postpone reporting on this indicator until such time as reliable data are available.

10. HOSPITAL RE-ADMISSIONS FOR SELECTED CONDITIONS

These numbers are too small to report in a reliable way, due to the relatively small population of Yukon.

11. ACCESS TO 24/7 FIRST CONTACT HEALTH SERVICES

24/7 health services include: (a) information and advice and (b) direct-treatment services, which may be obtained through first contact with the health system, to meet immediate or routine health care needs.

None of the three territories was included in the data collection for this indicator, which was carried out as part of the Canadian Community Health Survey. These data will be reported if available in subsequent years.

12. HOME AND COMMUNITY CARE SERVICES

12a. Home care admissions

DEFINITION

The number of admissions to publicly funded home care services, including home health and home support services, per capita.

RATIONALE

In recent years, governments have supported programs to deliver some health services to people in their homes, as an alternative to admitting people to acute-care or long-term care facilities. This trend has certain benefits, for example: people needing care are more comfortable, and their lifestyles and independence are maintained for as long as possible; facility space can be reserved for those with greater health care needs; lower costs are often associated with home care, compared to care in institutions.

Data on home care admissions in Yukon are collected by the Department of Health and Social Services, and are available for all but one Yukon community. By 2003, it will be possible to compile comprehensive data from all Yukon communities, at which time Yukon will report on this indicator.

12b. Home care admissions, age 75+

DEFINITION

The number of admissions to home care services, age 75+ (receiving publicly funded home care services, including home health care and home support services) per capita.

Data on home care admissions for Yukoners age 75 years and older are collected by the Department of Health and Social Services, and are available for all but one Yukon community. By 2003, it will be possible to compile comprehensive data from all Yukon communities at which time Yukon will report on this indicator.

12c. Utilization of home care services

DEFINITION

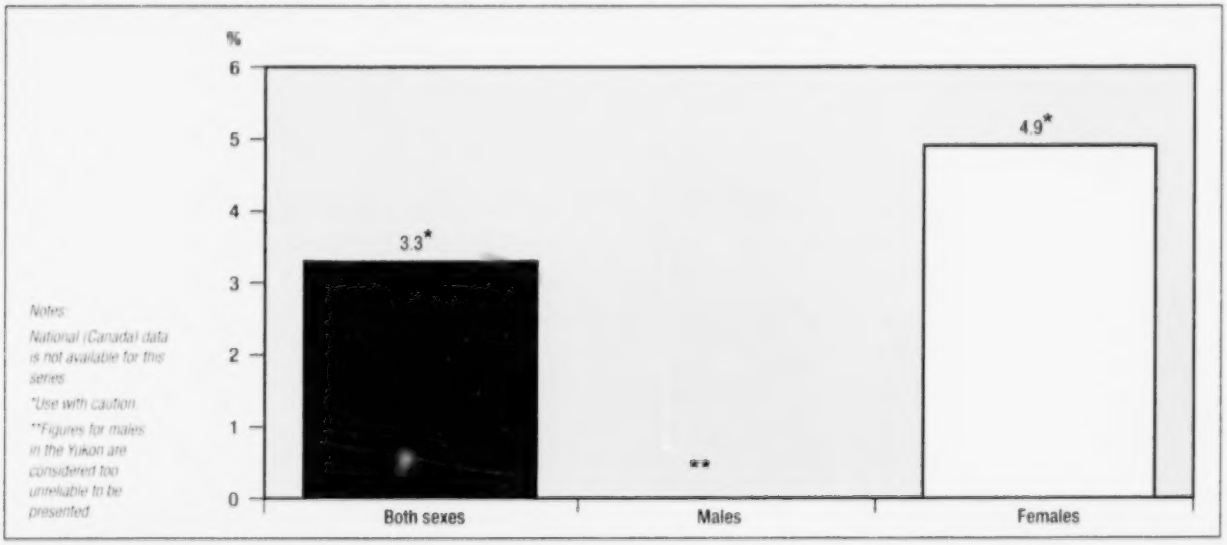
The proportion of the population reporting receipt of homemaking, nursing or respite services.

RATIONALE

These indicators apply to individuals 18 years old and older living in private households who have received home care services over a 12-month reference period.

Figure 12c presents Yukon data for all persons age 18 years and over for Yukoners and Yukon women. The percentage of Yukon males receiving home care services is too unreliable to report as are the percentage of Yukoners (both male and female) receiving home care services in the required age groups (65-74 years; 75 years and older).

FIGURE 12c. Estimated percent of total Yukon population receiving homemaking, nursing or respite services in the past 12 months, aged 18 and over, 2000



Source (Figure 12c): Statistics Canada, Canadian Community Health Survey, CANSIM no. 01050036

12d. Hospitalization rate for ambulatory care sensitive conditions (ACSC)

INDICATOR NAME
Hospitalization rate for ambulatory care sensitive conditions

DEFINITION
Age standardized in-patient acute care hospitalization rate for conditions where appropriate ambulatory care may prevent or reduce the need for admission to hospital.

RATIONALE
Hospitalization rates for conditions which may often be cared for in the community are one indicator of appropriate access to community-based care. These are long-term health conditions which can often be managed with timely and effective treatment in the community, without hospitalization. These conditions include diabetes, asthma, alcohol and drug dependence and abuse, neuroses, depression, hypertensive disease, and others. Although preventive care, primary care, and community-based management of these conditions will not eliminate all hospitalizations, such steps could eliminate many of them.

Health care professionals generally believe that managing these conditions before a patient requires hospitalization improves the patient's health, contributes to better overall community health status, and often saves money because community-based care usually costs less than hospitalization. Optimizing the management and treatment of these conditions will contribute to both improved patient health outcomes and more efficient resource utilization.

These data are available in Yukon but could not be compiled for this report; Yukon will report on these data in subsequent years.

13. PUBLIC HEALTH SURVEILLANCE AND PROTECTION

The indicator conditions presented in this section are a representative sample of diseases covering the four areas of water borne diseases, food borne diseases, air borne diseases and diseases that are transmitted sexually or through IV drug use. The selected diseases are nationally notifiable.

Self-reported exposure to environmental tobacco smoke reflects the effectiveness of the public health system in protecting non-smokers against exposure to tobacco smoke in public spaces and work places.

13a. Tuberculosis (TB) incidence rate

DEFINITION

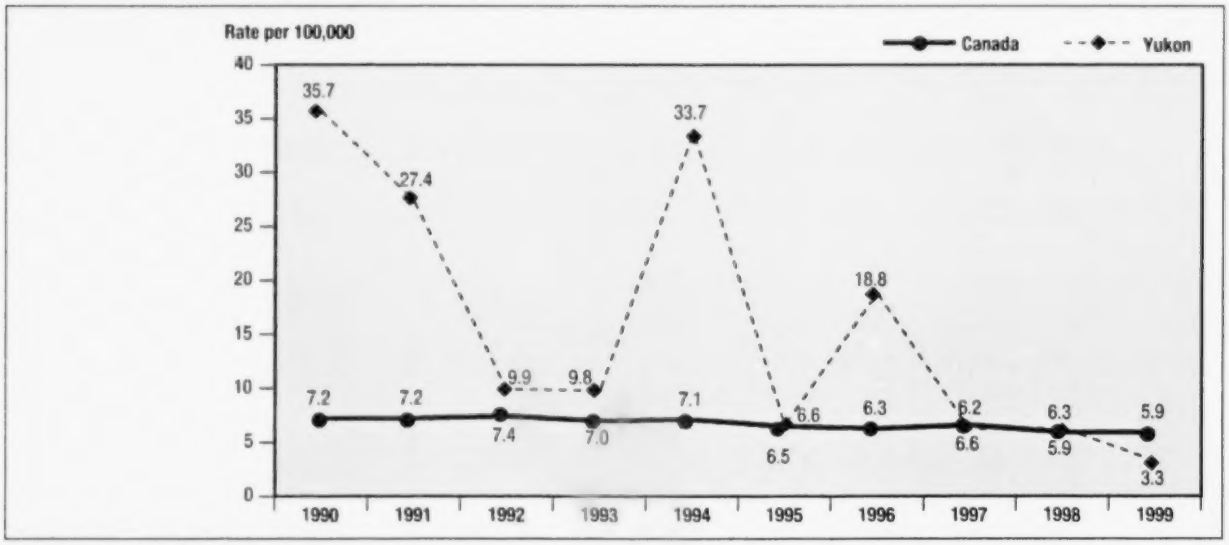
Rate of incident cases of infectious pulmonary tuberculosis reported by calendar year.

RATIONALE

TB is an important public health problem that has become more prominent in recent years. Incidence is linked to high-risk groups, such as recent immigrants, First Nations communities and people co-infected with HIV. Multiple drug-resistance is also emerging as a problem.

Yukon has 50 total reported cases of TB between 1990 and 2001 (note that data for 2000 and 2001 are preliminary, so that the 50 cases must be considered subject to change). The incidence rate shows a decrease over time, with only 8 of the cases occurring in the past 5 years, and none reported for 2001. During the same period of time, the incidence of TB in Canada has remained relatively constant.

FIGURE 13a. Tuberculosis, Canada and Yukon, 1990-1999. Rate per 100,000 population



Source (Figure 13a): Health Canada

13b. Reported HIV diagnosis

DEFINITION

Estimates of new diagnoses of HIV infection, based on new positive HIV test reports.

The number of new cases of HIV infection from 1996 to present are presented in the table below

Year	1996	1997	1998	1999	2000	2001
New cases	4	2	3	1	5	2

Source: Health Canada

13c. Verotoxogenic *E. coli* incidence rate

DEFINITION

The rate of incident cases reported by year.

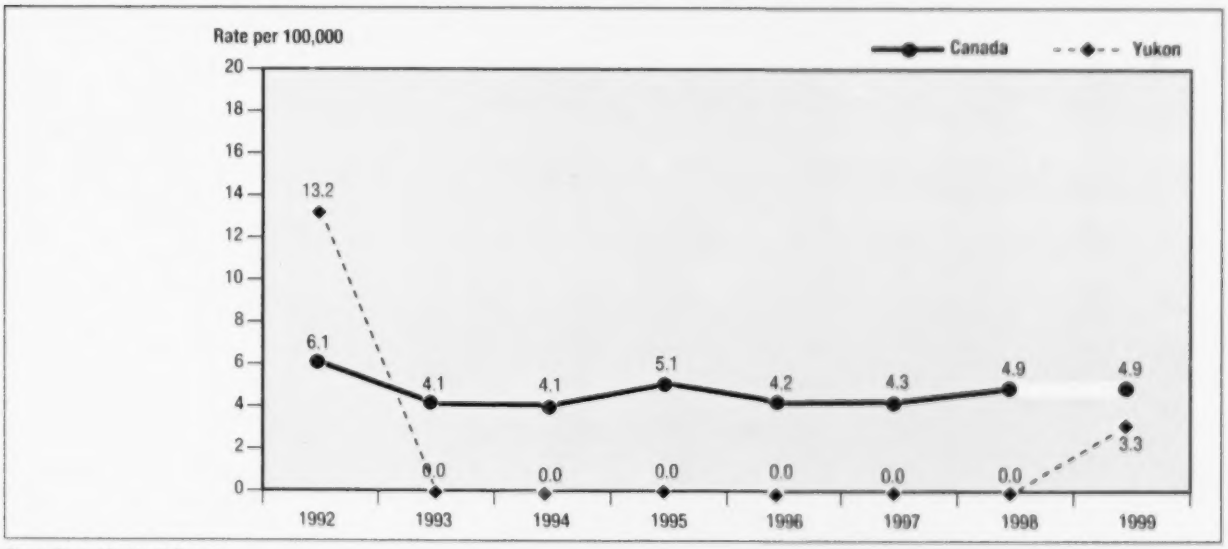
A confirmed case is defined as laboratory confirmation of infection with or without symptoms with isolation of verotoxin-producing *Escherichia coli* from an appropriate clinical specimen.

RATIONALE

This may be considered an approximate indicator of food-borne illness. It also has implications for water-borne disease issues. *E. coli* O157 is included in the category of verotoxogenic *E. coli* (VTEC), accounting for more than 90% of cases.

With the exception of 1992 and 1999, no cases of verotoxogenic E. coli infection have been reported during this timeframe.

FIGURE 13c. Verotoxogenic *E. coli* cases, Canada and Yukon, 1992-1999. Rate per 100,000 population



Source (Figure 13c): Health Canada

13d. Chlamydia incidence rate

DEFINITION

Incidence rate of reported genital infections, by calendar year.

A confirmed case is defined as laboratory confirmation of infection - detection of *C. trachomatis* by appropriate laboratory techniques in genitourinary specimens.

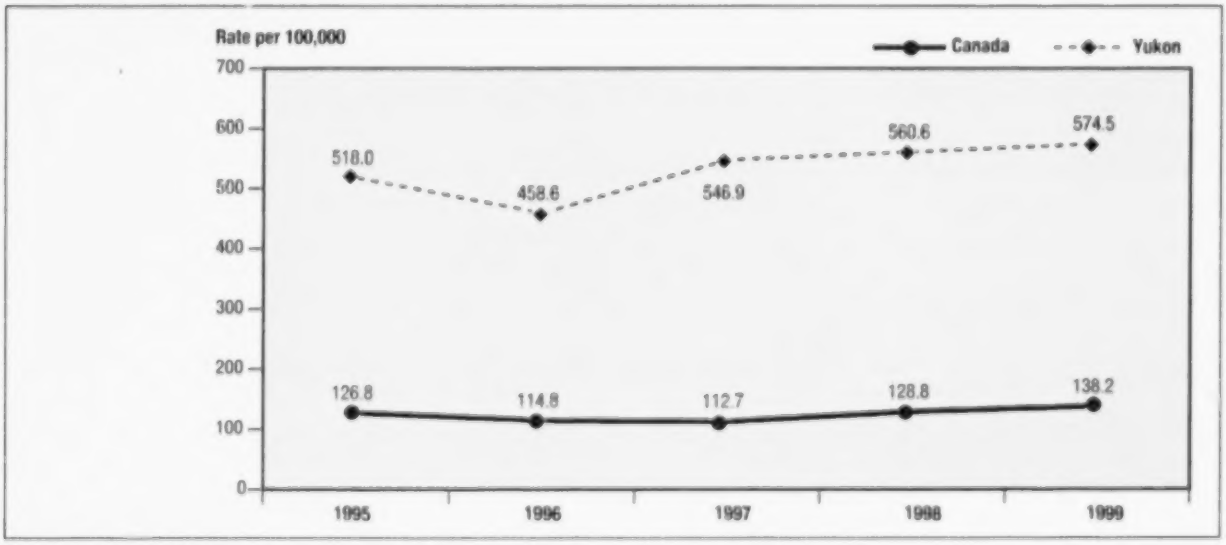
RATIONALE

Chlamydia is the most common sexually transmitted disease with most cases appearing in the 15 to 24 year old age group. Non-treatment of this STD can result in female infertility and ectopic pregnancy.

The higher incidence rates relative to other STDs are a more sensitive indicator of change in risk behaviours and reflect the effectiveness of primary and secondary prevention.

Chlamydia rates in Yukon ranged from a high of 574.5 to a low of 458.6 during the period 1996-1999. During this time period, rates for Canada ranged from a high of 138.2 to a low of 112.7. The rates of Chlamydia in Yukon may reflect a higher rate of infection among Yukoners and/or higher detection rates due to aggressive health-promotion strategies, which have encouraged testing.

FIGURE 13d. Chlamydia, Canada and Yukon, 1995-2001. Rate per 100,000 population



Source (Figure 13d): Health Canada

13e. Exposure to environmental tobacco smoke

DEFINITION

Proportion of the non-smoking Canadian population regularly exposed to environmental tobacco smoke.

RATIONALE

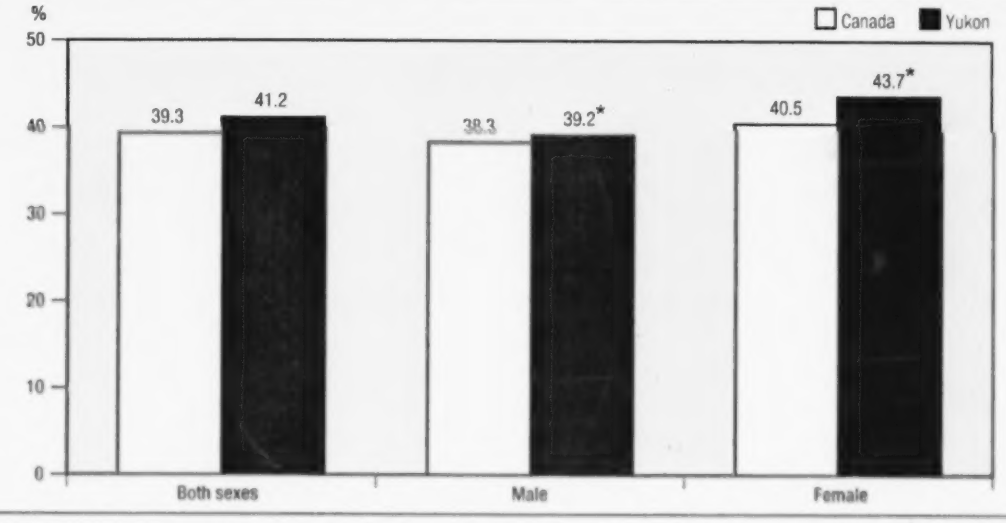
This indicator reflects the effectiveness of the public health system in protecting non-smokers against exposure to tobacco smoke.

The relationship between environmental tobacco smoke and adverse health effects is well accepted. Besides being a known mucous membrane irritant, second-hand smoke exposure is linked to increases in mortality from lung cancer and cardiovascular disease. Second-hand smoke has serious consequences for children: smoking mothers bear children with lower birth weights, and children living in homes where they are exposed to tobacco smoke have higher rates of asthma and respiratory tract problems. There is strong evidence of an association between exposure to environmental tobacco smoke and respiratory illness.

A large minority of Yukon and Canadian non-smokers aged 12-19 years reported regular exposure to environmental ("second-hand") tobacco smoke (but note that caution is advised in interpreting the Yukon data from the two most recent surveys). Roughly one-quarter of Yukon and Canadian non-smoking adults report exposure to environmental tobacco.

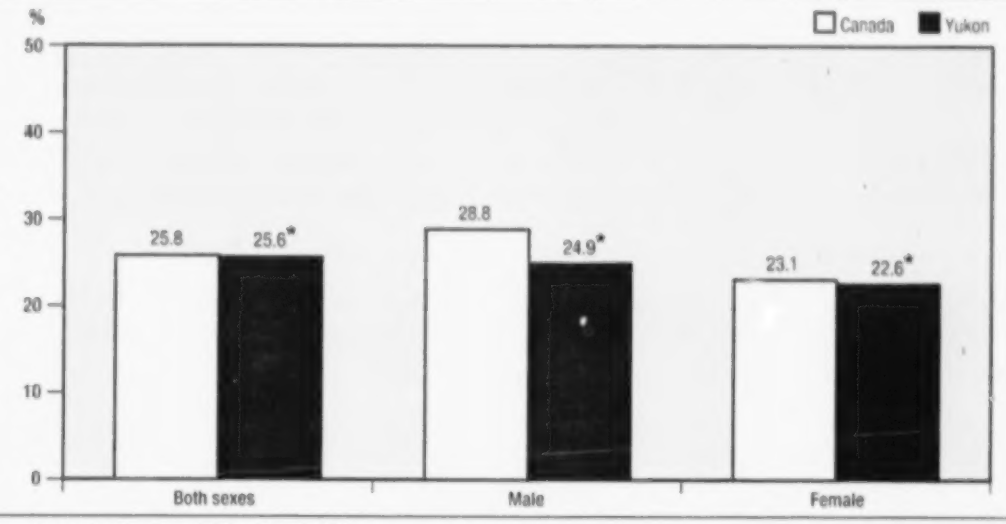
FIGURES 13e.1-2 Exposure to environmental tobacco smoke (ETS) in the last month, self-reported, Canada and Yukon, 2000

FIGURE 13e.1. Non-smokers aged 12-19



Note:
*Use with caution

FIGURE 13e.2. Non-smokers aged 20+



Note:
*Use with caution

Source (Figures 13e.1-2): Statistics Canada, Canadian Community Health Survey (CCHS)

14. HEALTH PROMOTION AND DISEASE PREVENTION

14a. Smoking

DEFINITION

Population aged 12 to 19 reporting they are current smokers, at the time of the interview.

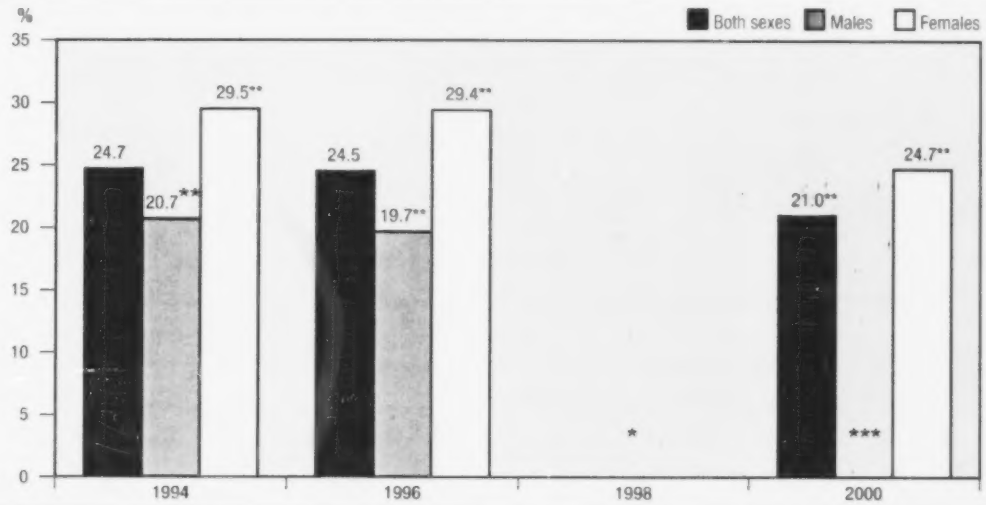
RATIONALE

Tobacco use is the leading cause of preventable illness and death in Canada. Health Canada estimates that smoking is responsible for more than 45,000 deaths per year. The indicator is the proportion of those aged 12-19 who report current smoking. Because of the addictive nature of nicotine, youth smoking is of particular concern. It is estimated that approximately eight out of every 10 people who try smoking become habitual smokers.

Caution is advised when interpreting Yukon data due to the frequency of unreliable and missing data. Data for daily smokers in the 12 to 19 year old age group will not be presented separately due to missing and unreliable data.

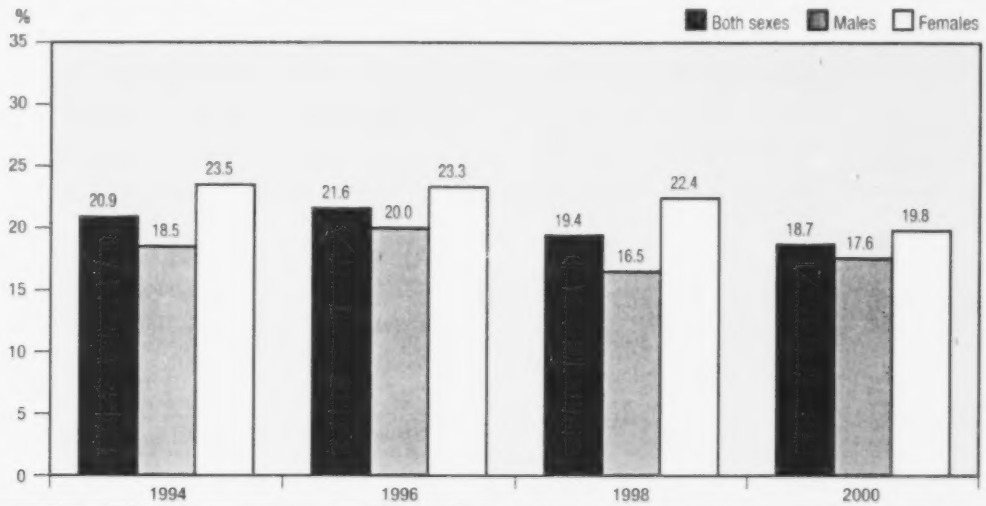
FIGURES 14a.1-2. Percentage of current smokers (includes "daily" and "occasional" smokers) in the 12 to 19 year old age group

FIGURE 14a.1.
Yukon



Notes
**Figures for 1998 are not available*
***Use with caution*
****Too unreliable to be published*

FIGURE 14a.2.
Canada



Source (Figures 14a.1-2): Statistics Canada

14b. Physical activity

DEFINITIONS

a) Population aged 12 and over who report a physical activity index of "active."

b) Population aged 12 and over who report a physical activity index of "inactive."

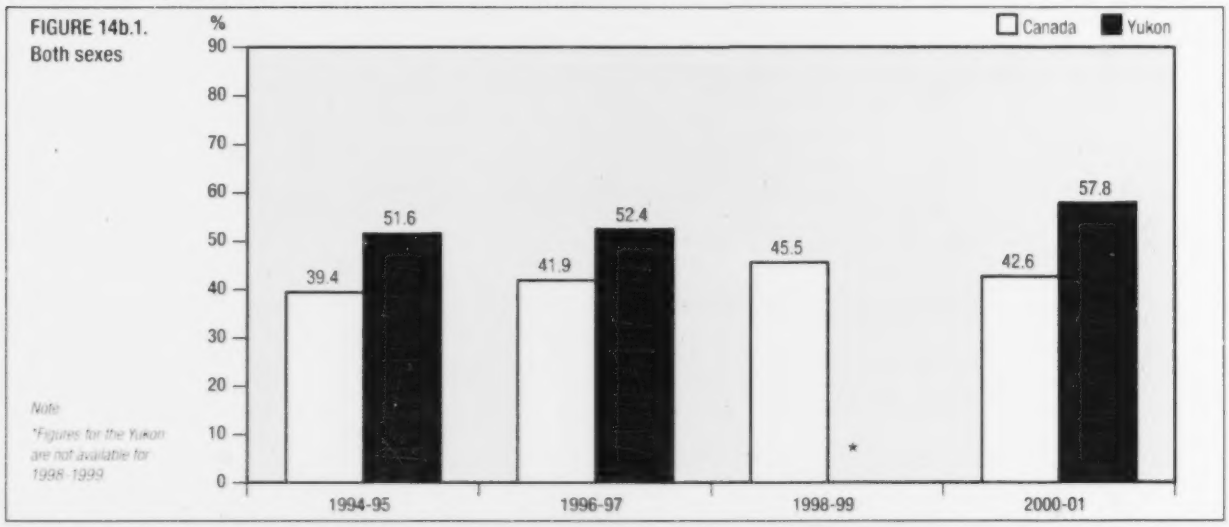
RATIONALE

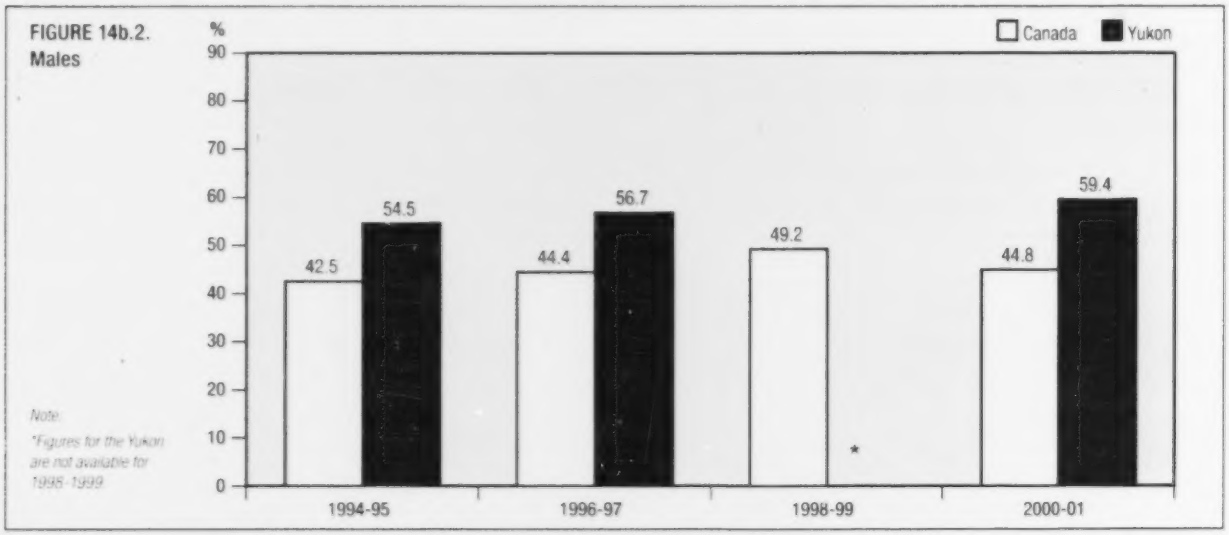
Maintaining physical activity is associated with a range of health benefits. Many studies have shown that regular physical activity confers major heart health benefits and that inactivity is a major risk factor for heart disease. Recent evidence from the National Population Health Survey supports this conclusion, and also shows that physically active individuals are less likely to become depressed.

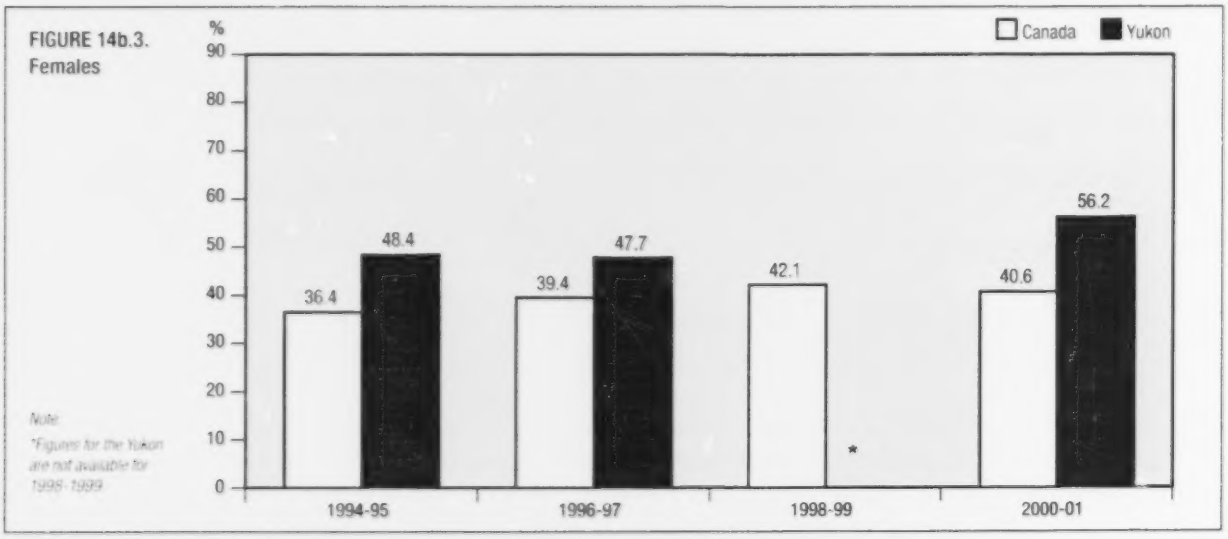
For the purposes of this report, "active" included persons indicating combined active (≥3.0 kcal/kg/day) moderately active levels of physical activity (1.5-2.9 kcal/kg/day). "Inactive" is the number of individuals reporting an inactive level of physical activity (< 1.5 kcal/kg/day).

Figure 14b.1 shows the percentage of individuals in Yukon and Canada who are active or moderately active. For every year for which data are available, slightly more than half of Yukoners are active or moderately active. In contrast, Canadian percentages lie between 39.4 and 45.5 percent. This same pattern holds when data for males and females are examined separately (see Figures 14b.2 and 14b.3).

FIGURES 14b.1-3. Percentage of individuals 12 years of age and older who are physically active or moderately physically active, Canada and Yukon, 1994-2001





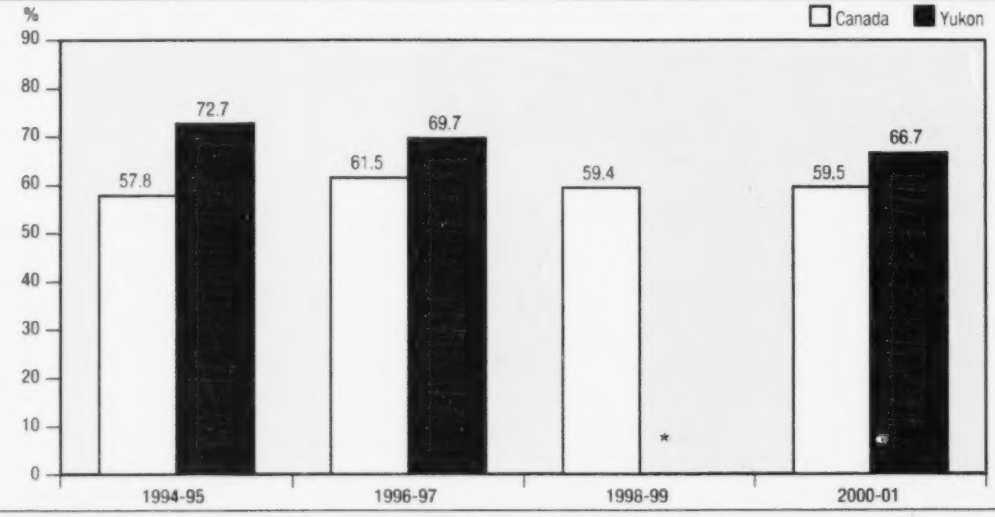


Source (Figures 14b.1-3): Statistics Canada

Figures 14b.4, 14b.5, and 14b.6 present data on the percentage of youth and adolescents who are physically active or moderately active. Note some gaps in the Yukon data due to unavailability or unreliability.

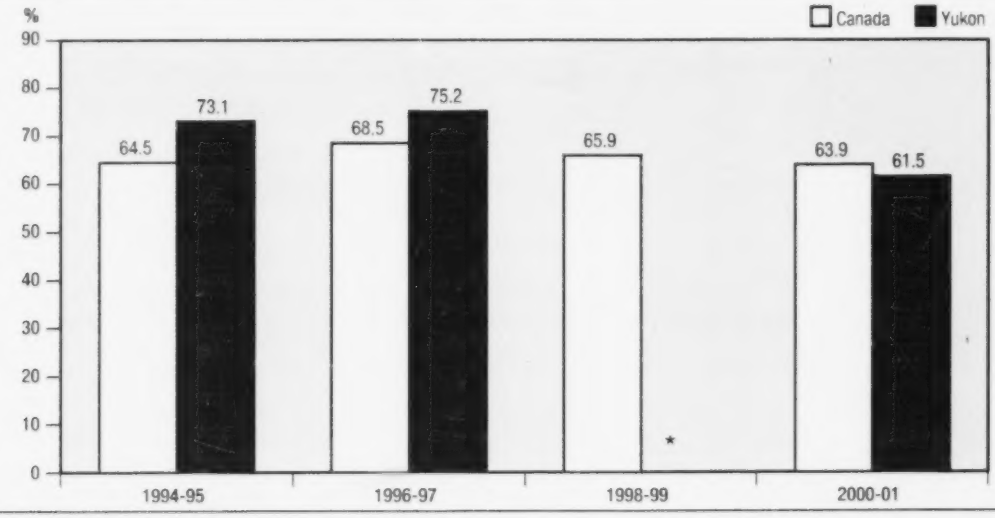
FIGURES 14b.4-6. Percentage of individuals 12 to 19 years of age who are physically active or moderately physically active, Canada and Yukon, 1994-2001

FIGURE 14b.4.
Both sexes



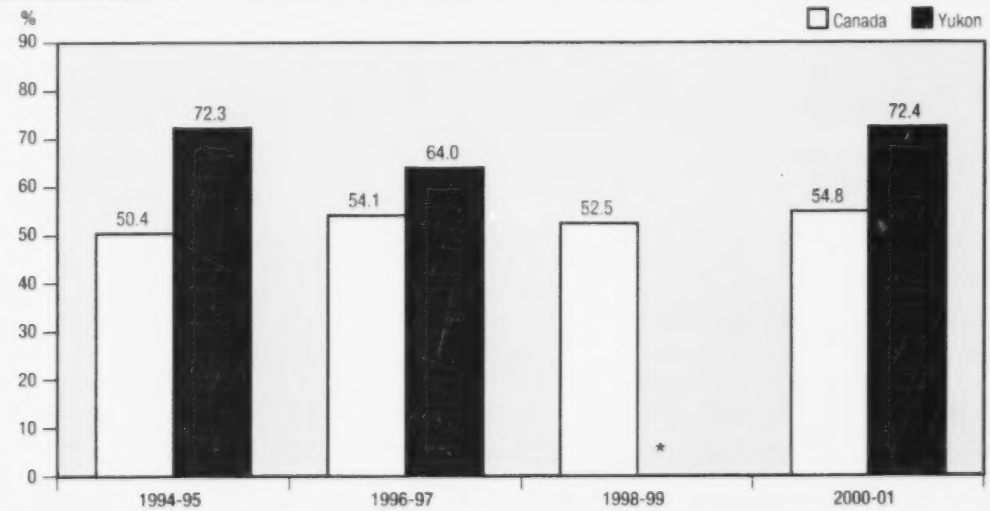
Note:
**Figures for the Yukon are not available for 1998-1999.*

FIGURE 14b.5.
Males



Note:
**Figures for the Yukon are not available for 1998-1999.*

FIGURE 14b.6.
Females



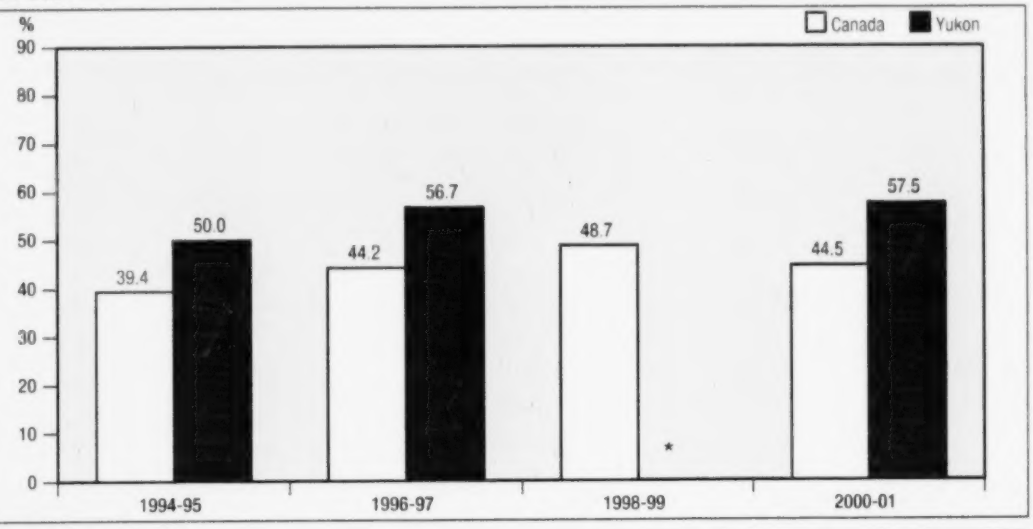
Note:
**Figures for the Yukon are not available for 1998-1999.*

Source (Figures 14b.4-6): Statistics Canada

The data for Yukoners and Canadians, aged 20 to 34 years are presented in the next three figures. Figures 14b.7 presented data for both sexes combined and Figures 14b.8, and 14b.9 present data for males and females, respectively. More than half of Yukon males in this age range report are considered active or moderately active; slightly less than half of Canadian males are considered active or moderately active. Yukon women of this age, though somewhat less active than their male cohorts, still engage in relatively high levels of physical activity.

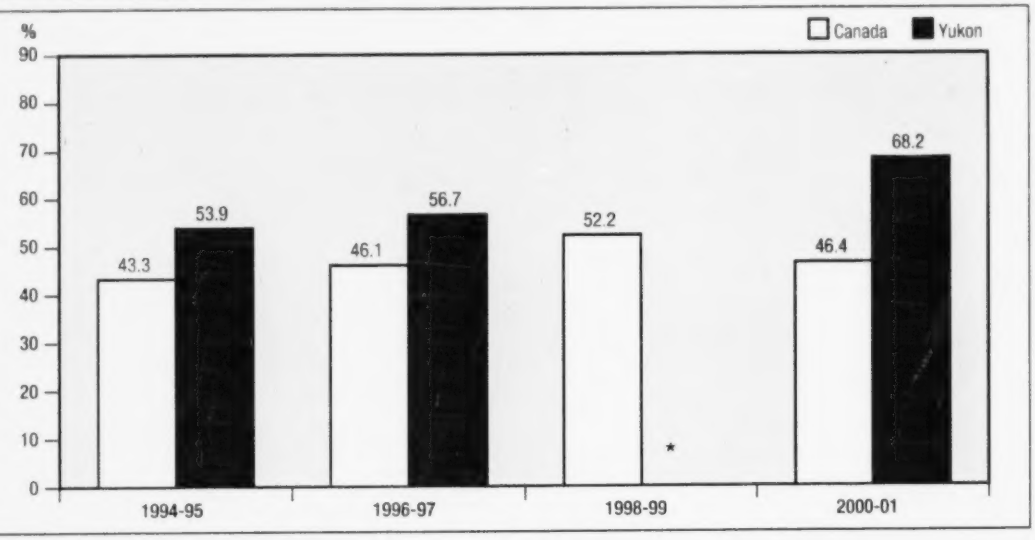
FIGURES 14b.7-9. Percentage of individuals 20 to 34 years of age who are physically active or moderately physically active, Canada and Yukon, 1994-2001

FIGURE 14b.7.
Both sexes



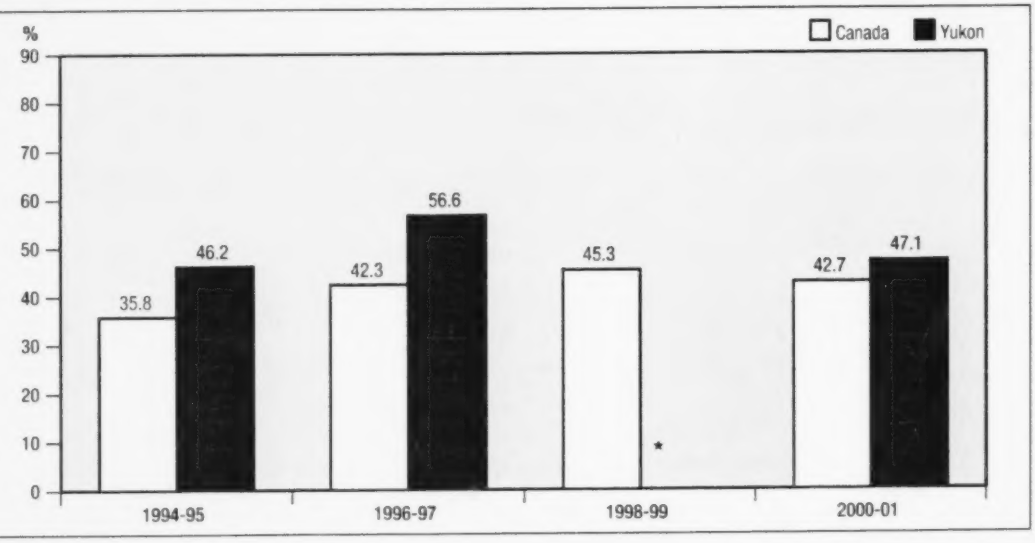
Note:
*Figures for the Yukon are not available for 1998-1999.

FIGURE 14b.8.
Males



Note:
*Figures for the Yukon are not available for 1998-1999.

FIGURE 14b.9.
Females



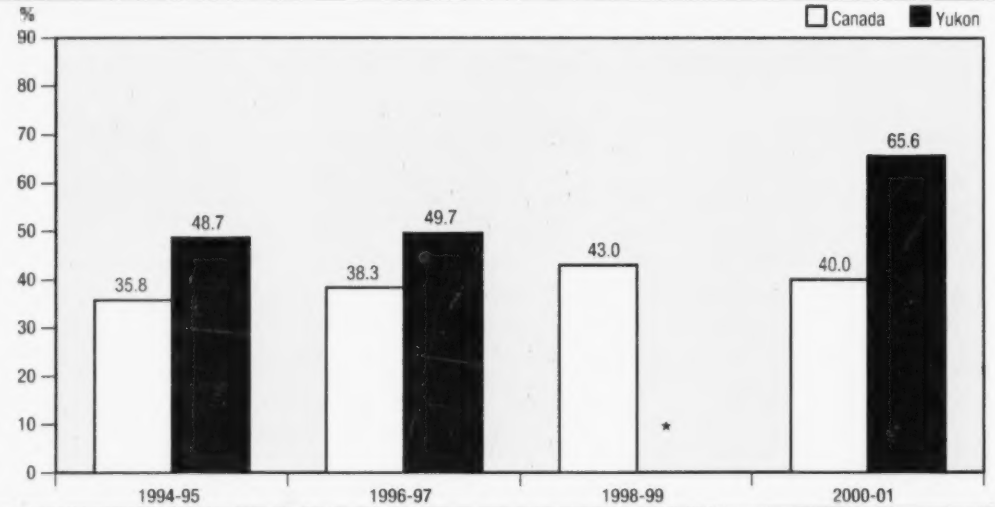
Note:
*Figures for the Yukon are not available for 1998-1999.

Source (Figures 14b.7-9): Statistics Canada

The three graphs on the next page depict activity levels for Yukoners and Canadians, ages 35-44. Most impressive are the high rates of activity evident in the most recent Yukon data with roughly two-thirds of both men and women engaging in active or moderately active lifestyles.

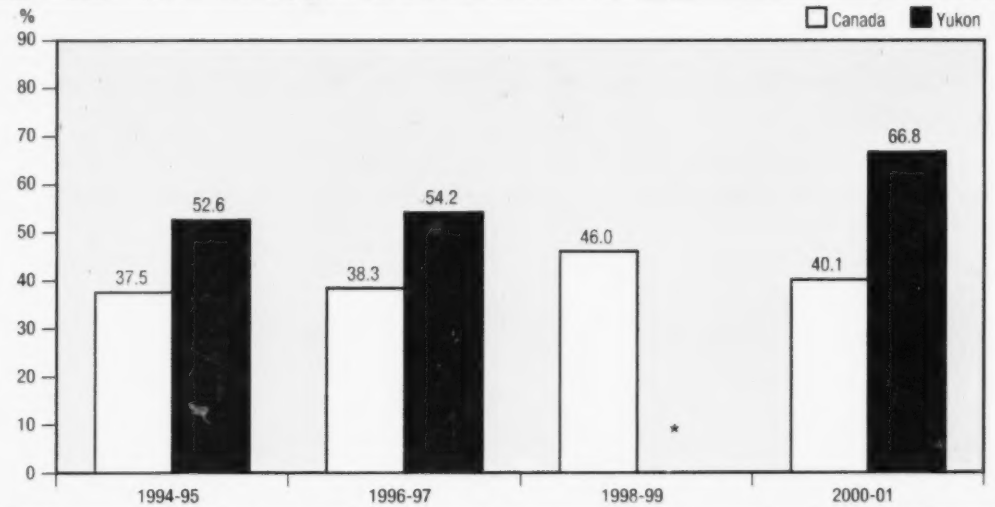
FIGURES 14b.10-12. Percentage of individuals 35 to 44 years of age who are physically active or moderately physically active, Canada and Yukon, 1994-2001

FIGURE 14b.10. Both sexes



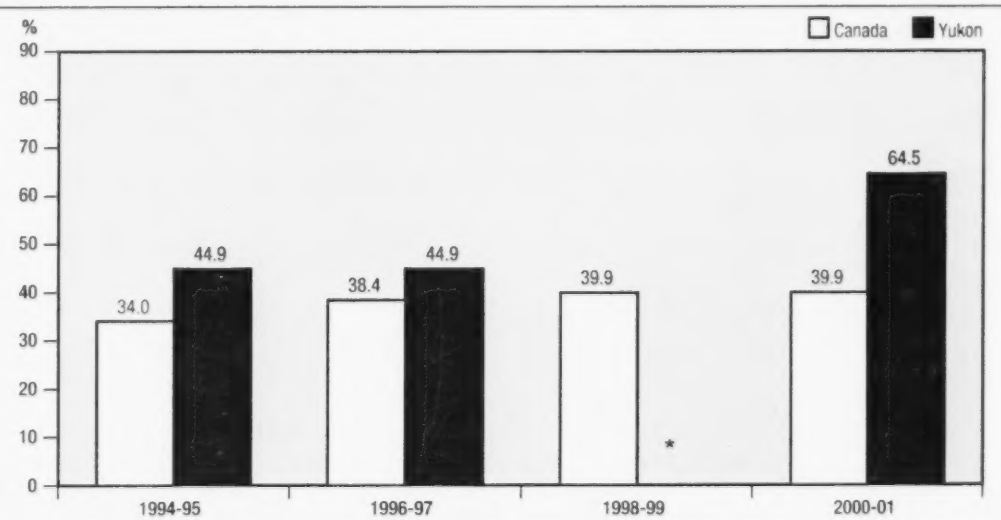
Note:
**Figures for the Yukon are not available for 1998-1999.*

FIGURE 14b.11. Males



Note:
**Figures for the Yukon are not available for 1998-1999.*

FIGURE 14b.12. Females



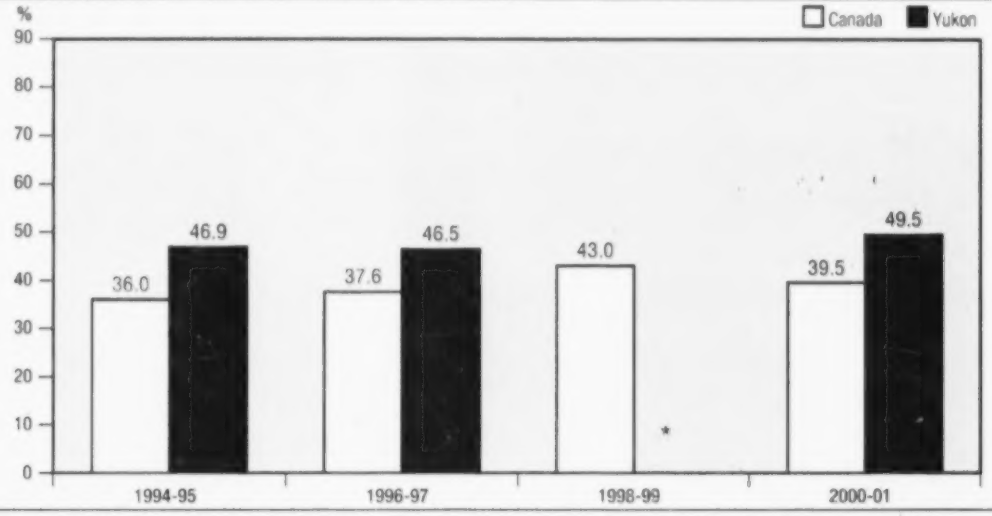
Note:
**Figures for the Yukon are not available for 1998-1999.*

Source (Figures 14b.10-12): Statistics Canada

Figures 14b.13, 14b.14 and 14b.15 portray activity in Yukoners and Canadians, aged 45 to 64 years. Activity among Yukoners of this age remains strong with somewhat less than half of men and women engaging in active or moderately active lifestyles.

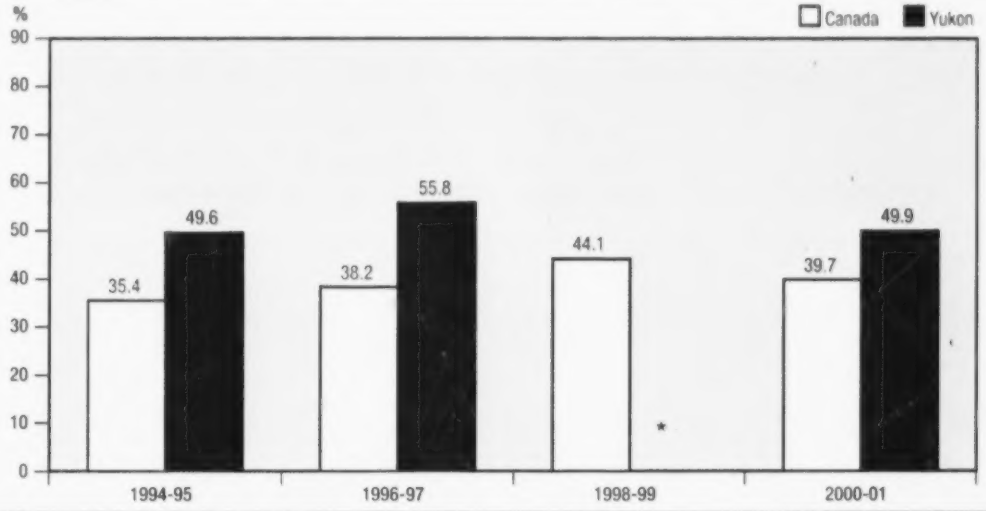
FIGURES 14b.13-15. Percentage of individuals 45 to 64 years of age who are physically active or moderately physically active, Canada and Yukon, 1994-2001

FIGURE 14b.13. Both sexes



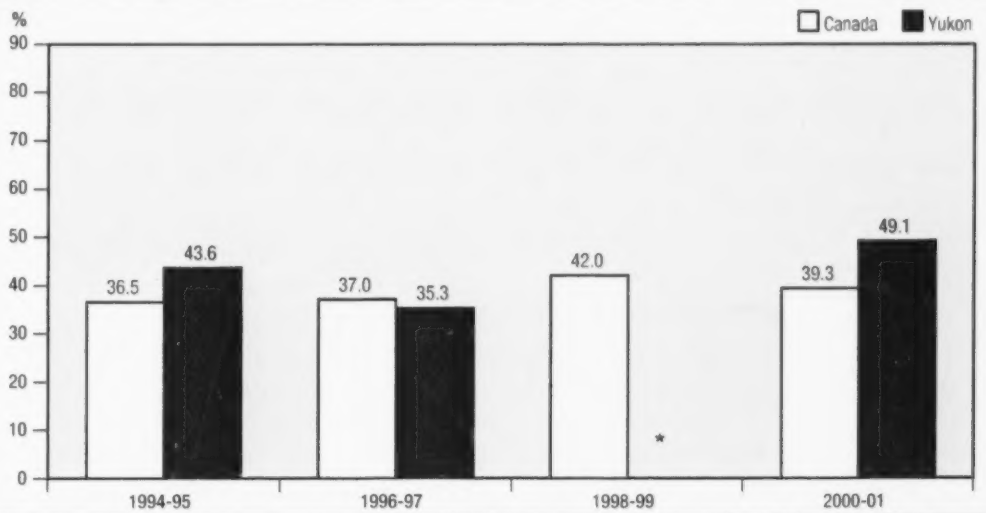
Note:
*Figures for the Yukon are not available for 1998-1999.

FIGURE 14b.14. Males



Note:
*Figures for the Yukon are not available for 1998-1999.

FIGURE 14b.15. Females

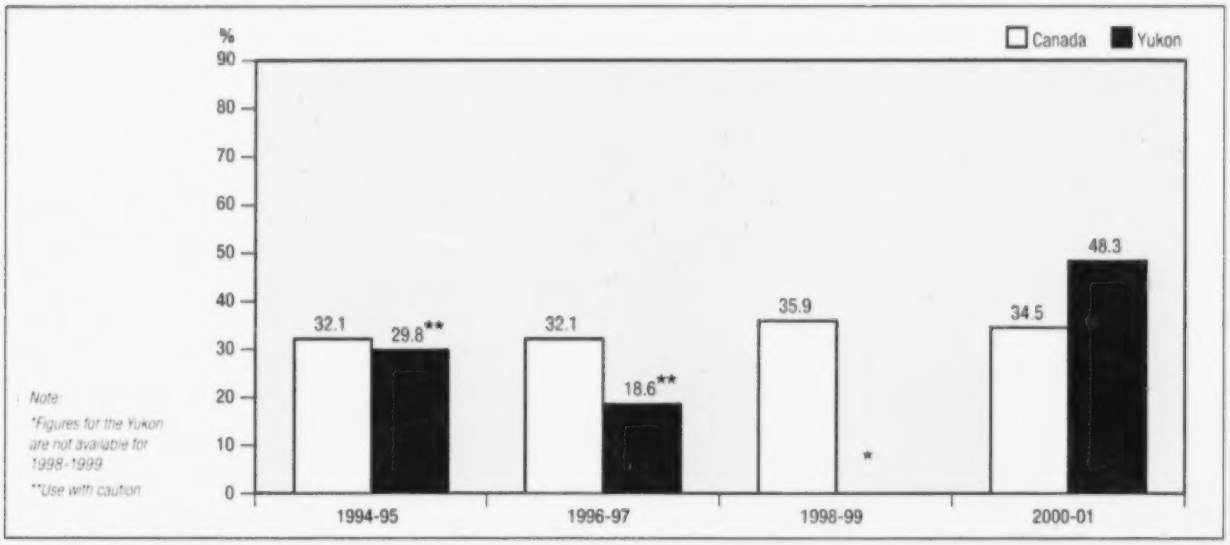


Note:
*Figures for the Yukon are not available for 1998-1999.

Source (Figures 14b.13-15): Statistics Canada

Data for Yukon seniors, males and females combined, is presented in the next graph. Note the missing data and the caution that the data for years 1994/95 and 1996/97 be used with caution. Data for male and female seniors will not be presented separately due to missing and unreliable data.

FIGURES 14b.16. Percentage of individuals 65 years of age and older who are physically active or moderately physically active, both sexes, Canada and Yukon, 1994-2001



Source (Figures 14b.16): Statistics Canada

Some summary comments:

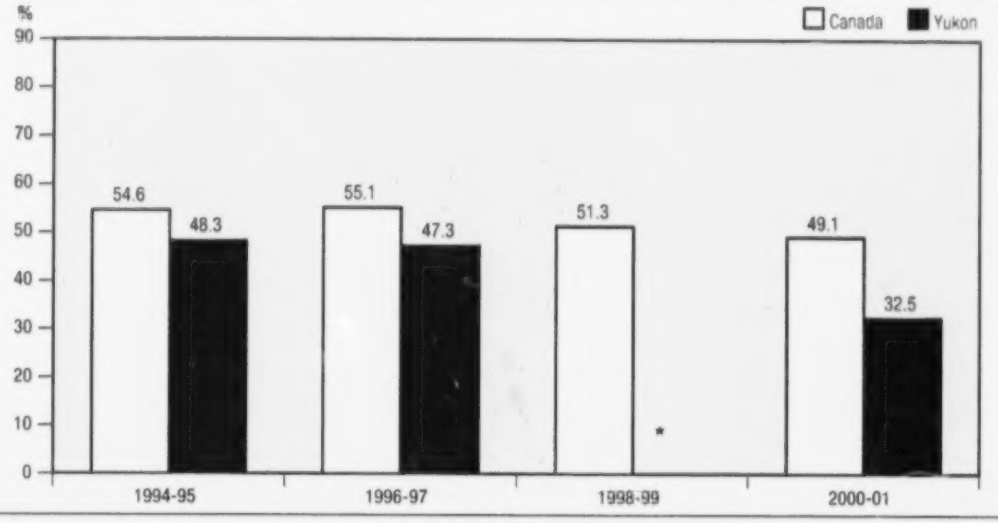
Taken together, the Yukon data on physical activity appear to indicate that

- Younger Yukoners are somewhat more active that older Yukoners;
- Yukon males may be somewhat more physically active than females across the life span;
- For most ages groups for both genders, roughly 50 percent of Yukoners have active or moderately active lifestyles;
- Higher rates of activity are seen in the most recent data, perhaps reflecting the success of active living campaigns and programs.

Data for physical inactivity of Yukoners and Canadians as a whole is presented on the next page. Less than 50 percent of Yukoners are classified as inactive; lowest rates of inactivity are seen in the most recent data.

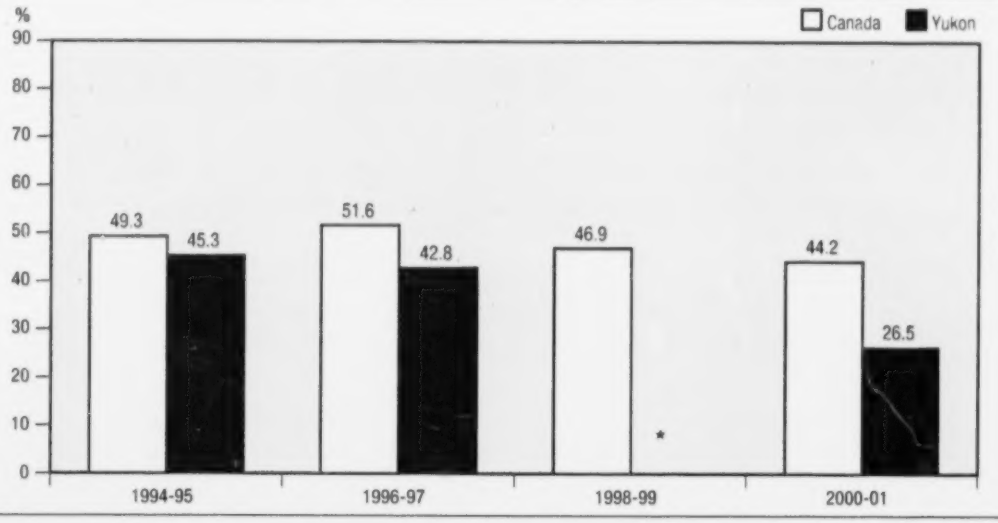
FIGURES 14b.17-19. Percentage of imdividuals 12 years of age and older who are physically inactive, Canada and Yukon, 1994-2001

FIGURE 14b.17.
Both sexes



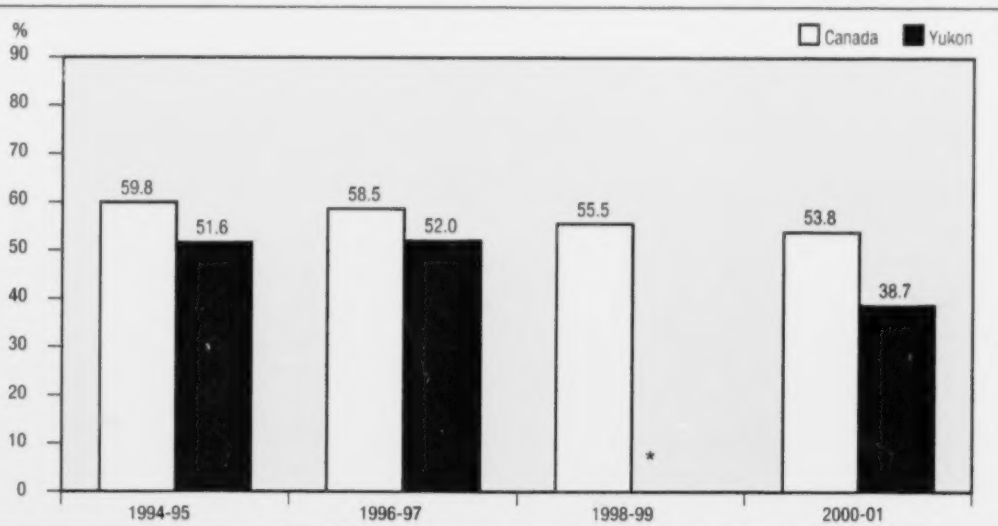
Note:
*Figures for the Yukon are not available for 1998-1999

FIGURE 14b.18.
Males



Note:
*Figures for the Yukon are not available for 1998-1999

FIGURE 14b.19.
Females



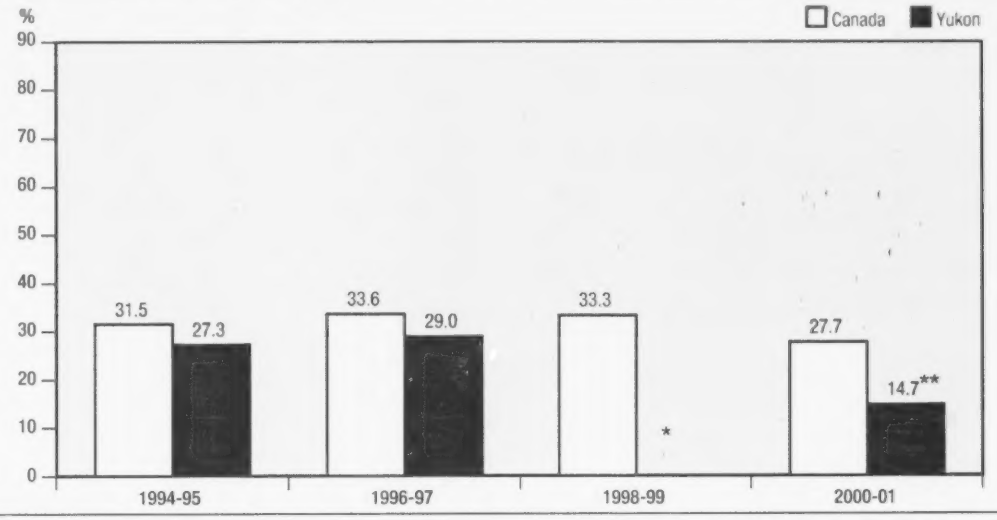
Note:
*Figures for the Yukon are not available for 1998-1999

Source (Figures 14b.17-19): Statistics Canada

Inactivity among youth and adolescents, aged 12 to 19 years, are presented in the next three graphs. Interpretation of Yukon data is limited by the missing data, unreliable data, and small numbers.

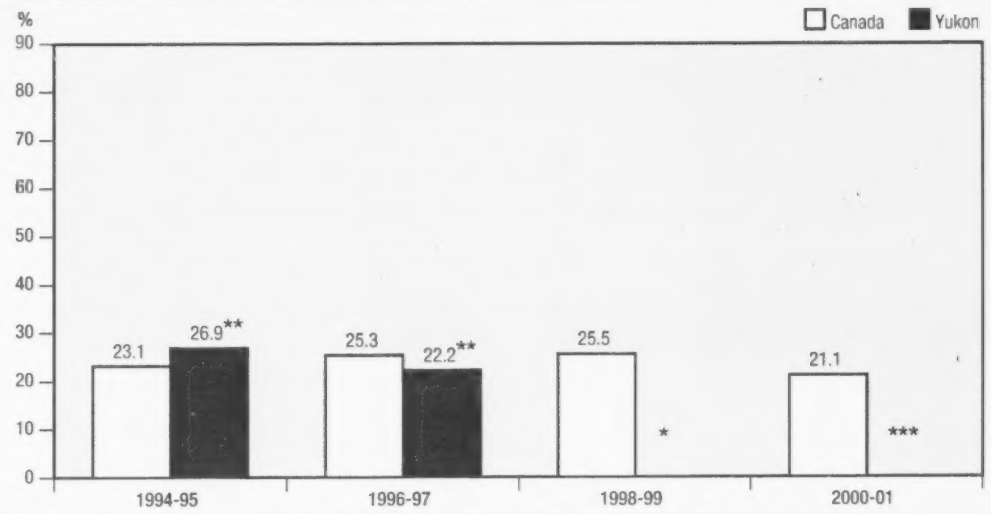
FIGURES 14b.20-22. Percentage of individuals 12 to 19 years of age who are physically inactive, Canada and Yukon, 1994-2001

FIGURE 14b.20.
Both sexes



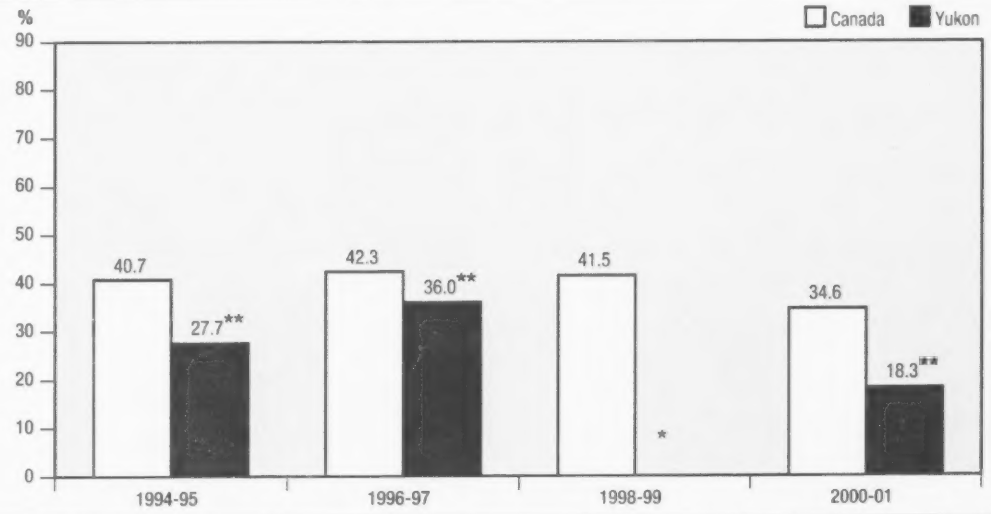
Note:
**Figures for the Yukon are not available for 1998-1999.*
***Use with caution.*

FIGURE 14b.21.
Males



Note:
**Figures for the Yukon are not available for 1998-1999.*
***Use with caution.*
****Yukon figures for 2000-01 are too unreliable to be published.*

FIGURE 14b.22.
Females



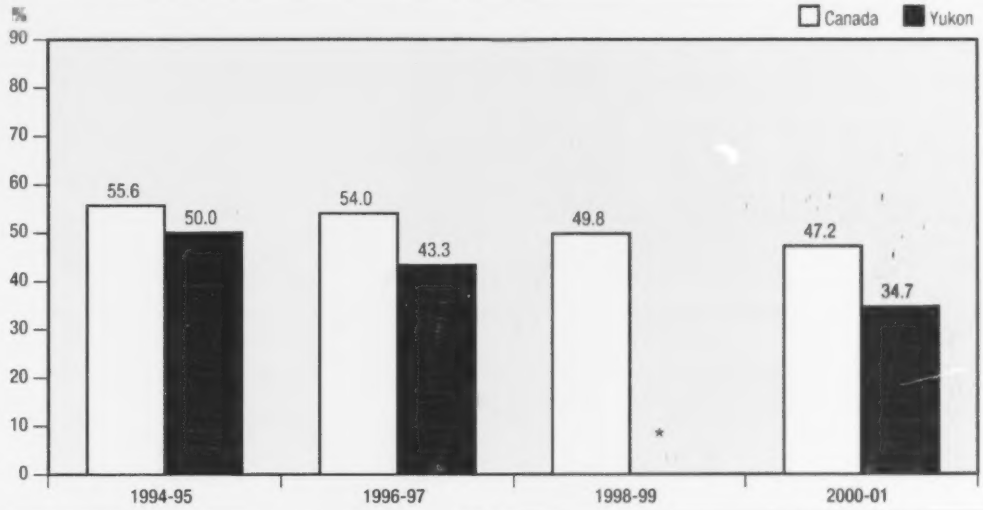
Note:
**Figures for the Yukon are not available for 1998-1999.*
***Use with caution.*

Source (Figures 14b.20-22): Statistics Canada

Data for Yukon and Canadian young adults, ages 20 to 34 years, are presented in the next three graphs. Rates of physical activity were lower among Yukon males, and lowest in the most recent data.

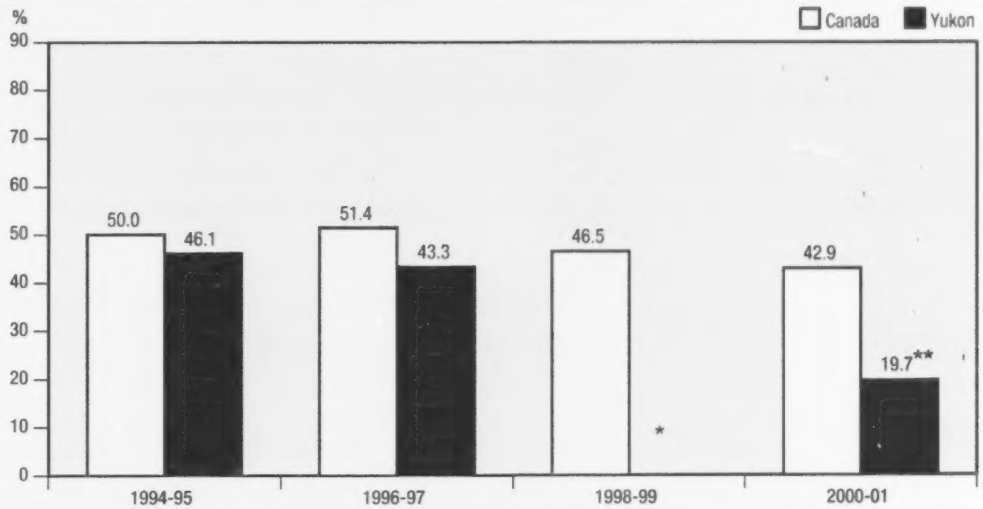
FIGURES 14b.23-25. Percentage of individuals 20 to 34 years of age who are physically inactive, Canada and Yukon, 1994-2001

FIGURE 14b.23.
Both sexes



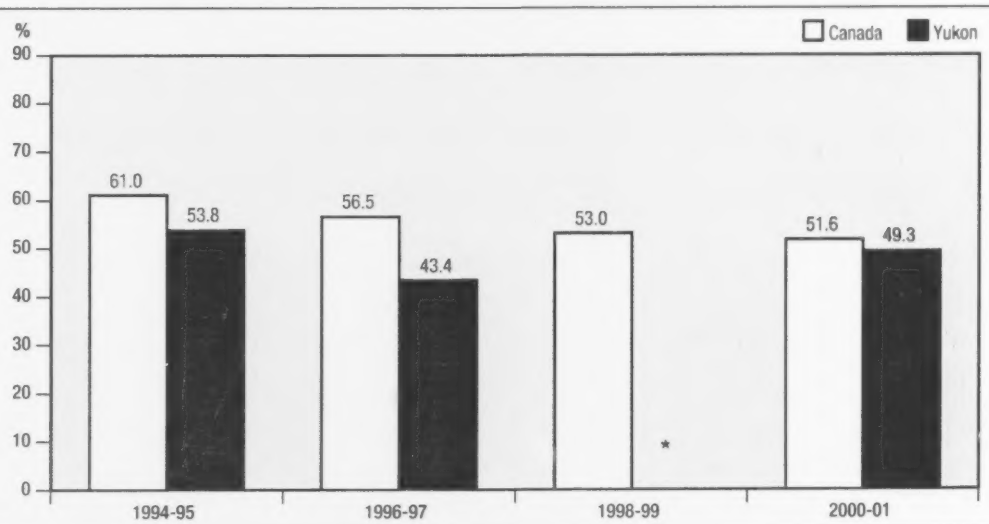
Note:
**Figures for the Yukon are not available for 1998-1999.*

FIGURE 14b.24.
Males



Note:
**Figures for the Yukon are not available for 1998-1999.*
***Use with caution.*

FIGURE 14b.25.
Females



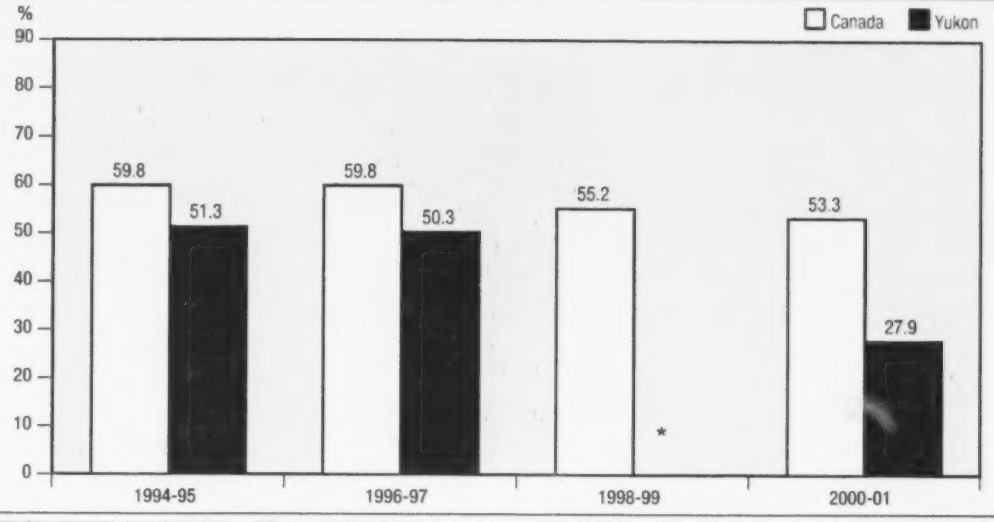
Note:
**Figures for the Yukon are not available for 1998-1999.*

Source (Figures 14b.23-25): Statistics Canada

Figures 14b.26, 14b.27, and 14b.28 present inactivity rates among Yukoners and Canadians, ages 35 to 44 years. Again, rates of inactivity for both male and female Yukoners are lowest in the 2000/01, with roughly one-quarter of Yukoners in this age being inactive.

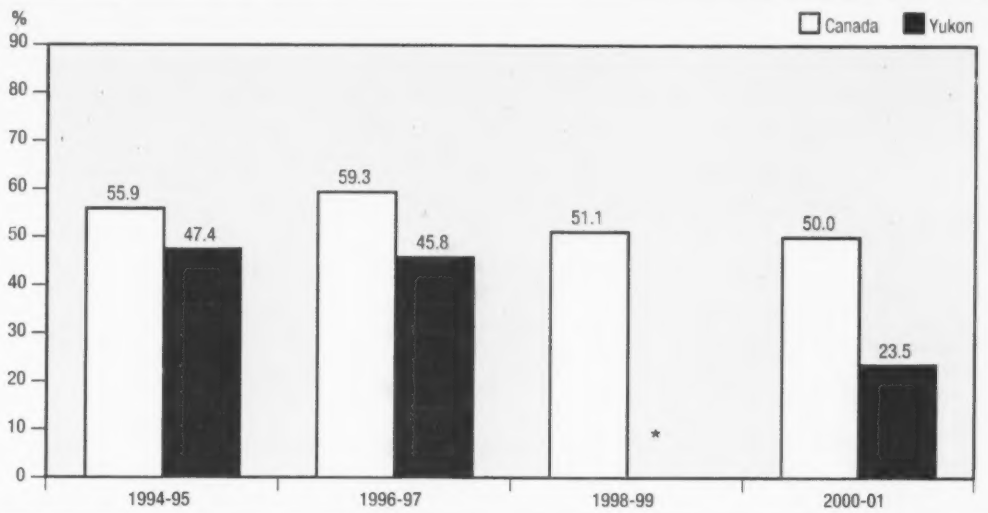
FIGURES 14b.26-28. Percentage of individuals 35 to 44 years of age who are physically inactive, Canada and Yukon, 1994-2001

FIGURE 14b.26.
Both sexes



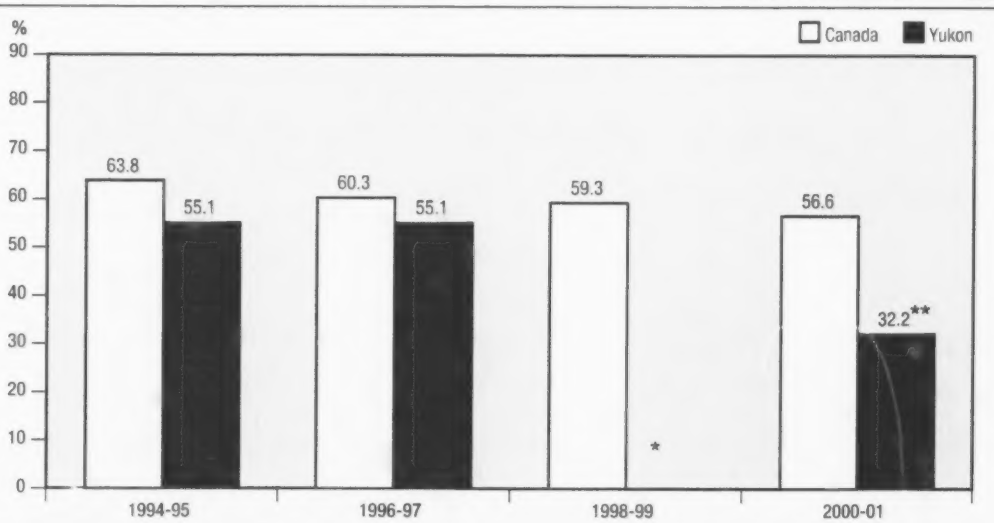
Note:
*Figures for the Yukon are not available for 1998-1999.

FIGURE 14b.27.
Males



Note:
*Figures for the Yukon are not available for 1998-1999.

FIGURE 14b.28.
Females



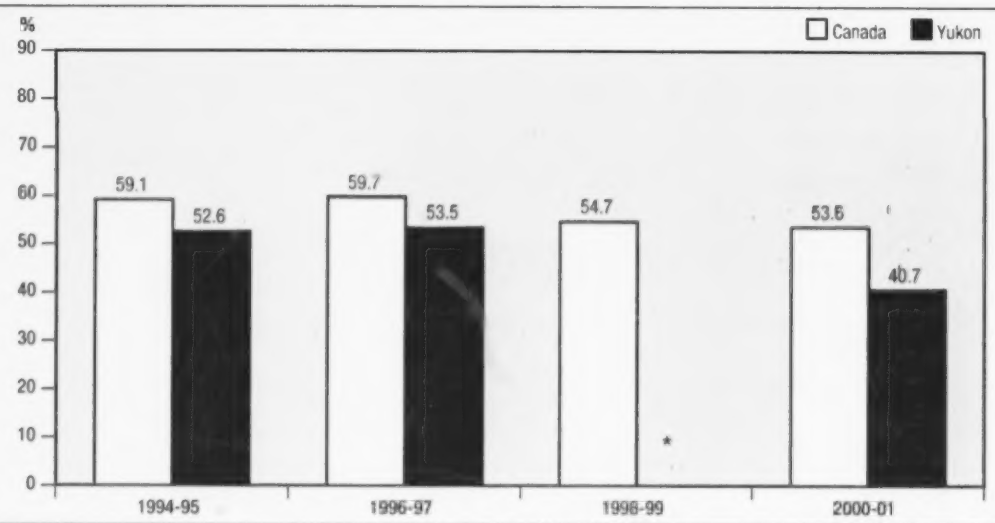
Note:
*Figures for the Yukon are not available for 1998-1999.
**Use with caution.

Source (Figures 14b.26-28): Statistics Canada

In the following three figures, data for Yukoners and Canadians aged 45-64 are presented. Of note is that for both Yukon women and men the lowest inactivity rates are seen in the most recently collected data, although these rates appear to be somewhat higher than those for Yukoners aged 35-44 years.

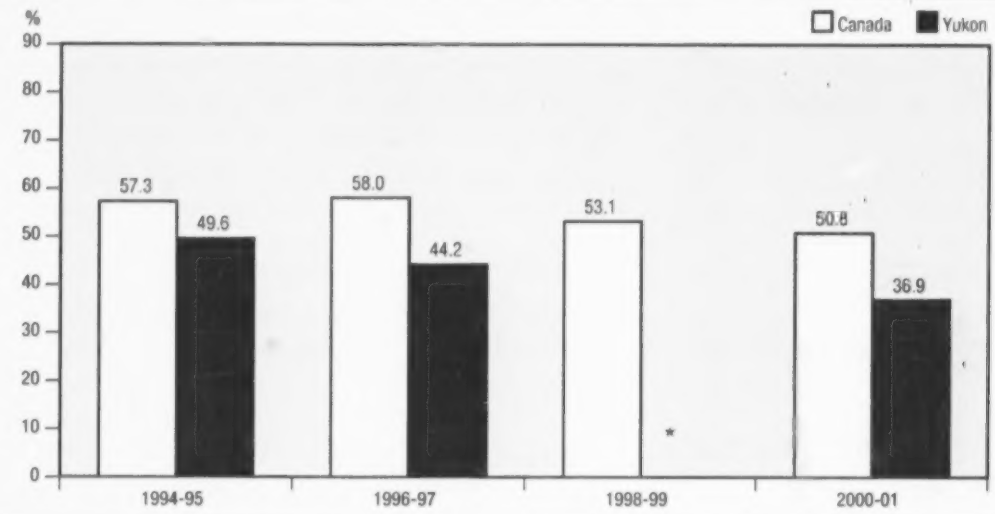
FIGURES 14b.29-31. Percentage of individuals 45 to 64 years of age who are physically inactive, Canada and Yukon, 1994-2001

FIGURE 14b.29.
Both sexes



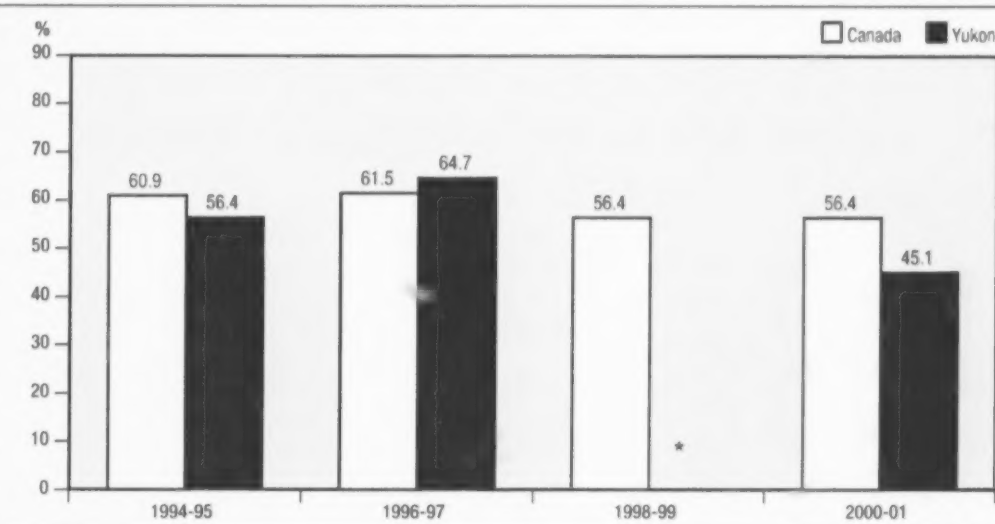
Note:
**Figures for the Yukon are not available for 1998-1999.*

FIGURE 14b.30.
Males



Note:
**Figures for the Yukon are not available for 1998-1999.*

FIGURE 14b.31.
Females



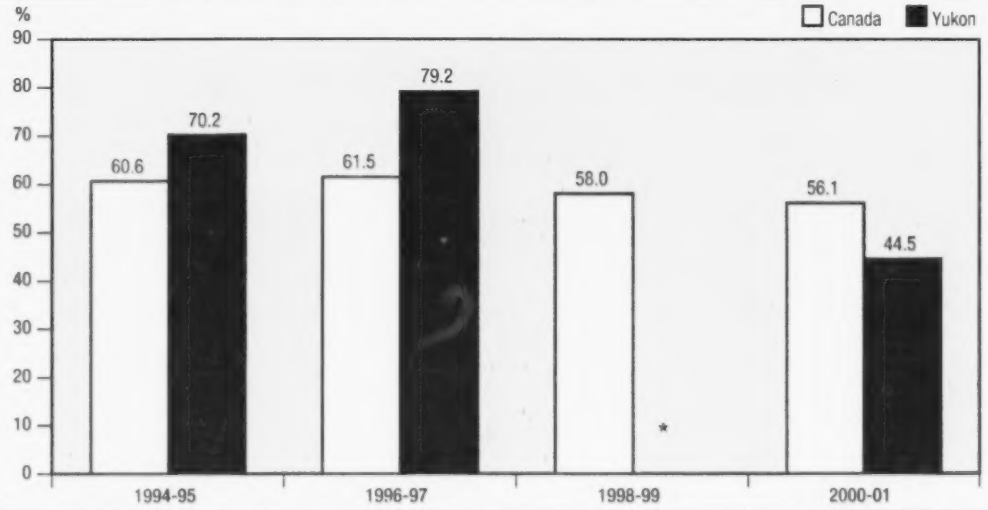
Note:
**Figures for the Yukon are not available for 1998-1999.*

Source (Figures 14b.29-31): Statistics Canada

Finally, data for seniors are presented on the next page. The data for Yukon seniors across years is quite variable, and although the lowest rates of inactivity occur in the most recent sample, Statistics Canada advises that these data be used with caution.

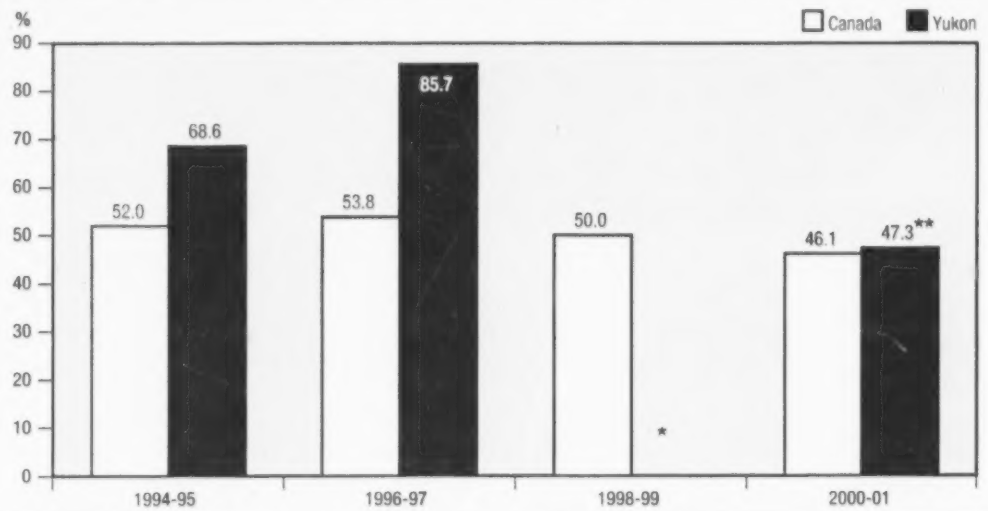
FIGURES 14b.32-34. Percentage of individuals 65 years of age and older who are physically inactive, Canada and Yukon, 1994-2001

FIGURE 14b.32.
Both sexes



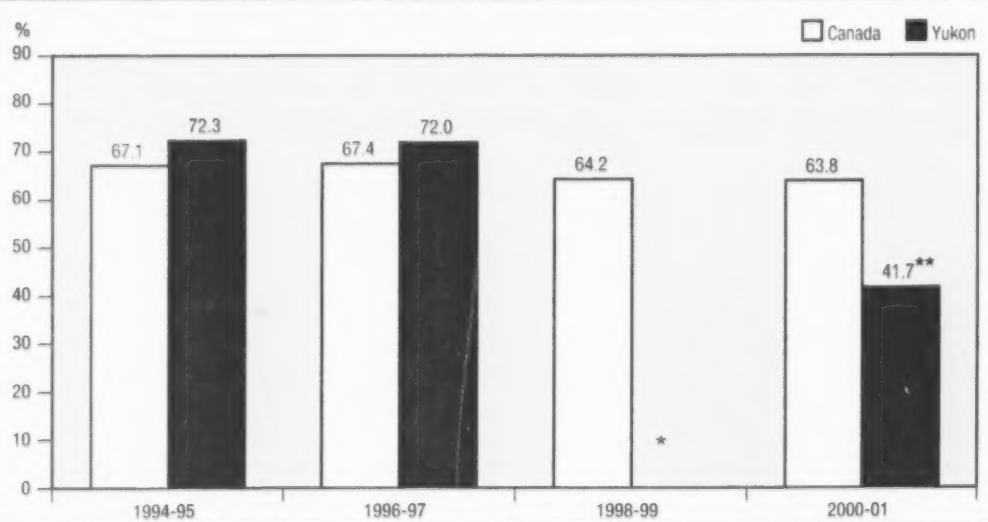
Note:
*Figures for the Yukon are not available for 1998-1999.

FIGURE 14b.33.
Males



Note:
*Figures for the Yukon are not available for 1998-1999.
**Use with caution.

FIGURE 14b.34.
Females



Note:
*Figures for the Yukon are not available for 1998-1999.
**Use with caution.

Source (Figures 14b.32-34): Statistics Canada

14c. Body weight

DEFINITION

Percent of adults who report a [computed] body mass index in specified categories, ranging from underweight to obese.

Body mass index (BMI) is based on self-reported height and weight, and calculated for persons 20 to 64 years old, excluding pregnant women. Due to different rates of growth for individuals under 20 years of age, the standard BMI is not considered a suitable indicator for this group. BMI is calculated as weight (in kilograms) divided by height (in metres) squared.

RATIONALE

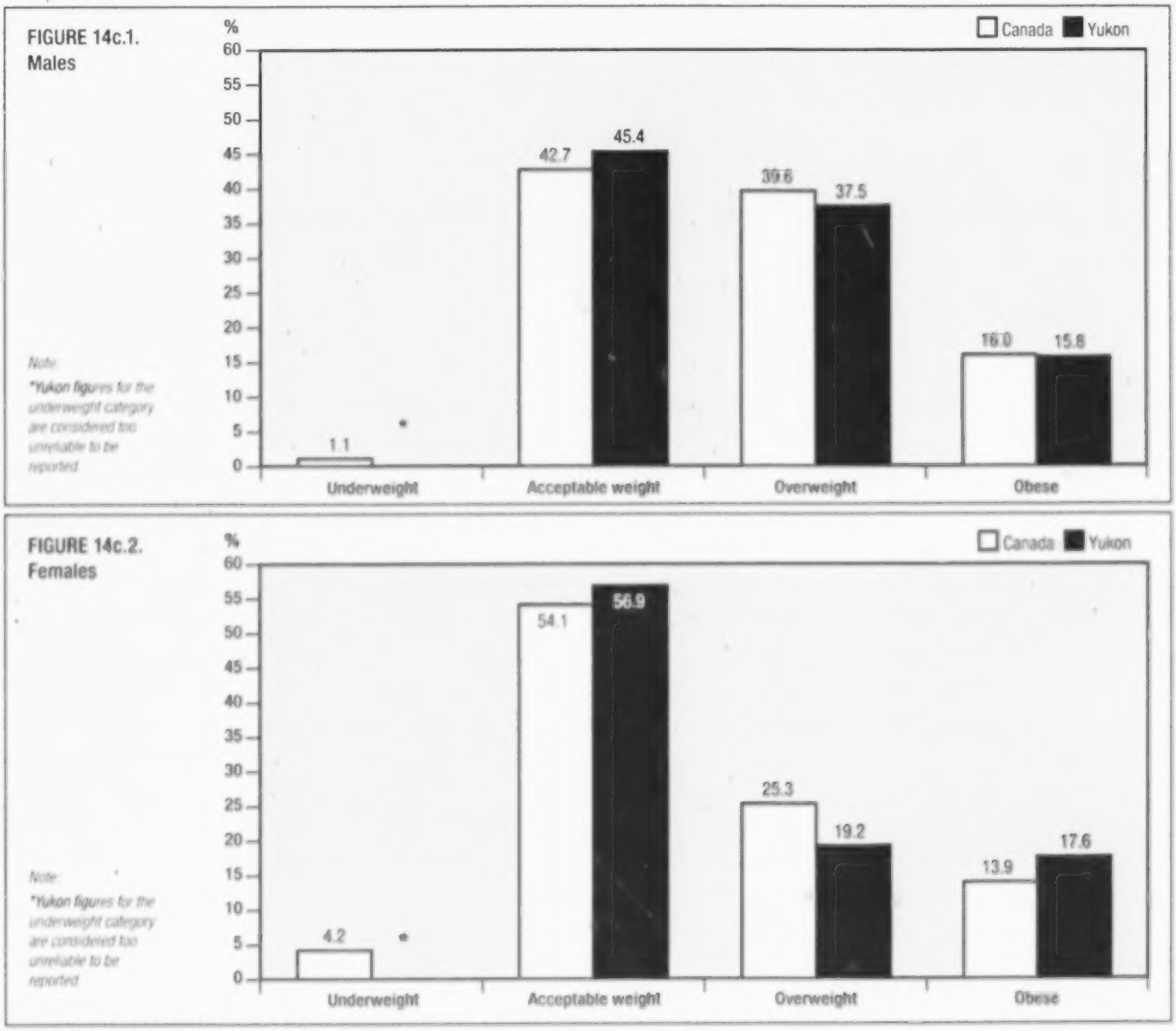
Obesity has been identified as a major risk factor contributing to a number of chronic illnesses such as diabetes and heart disease. BMI is the most common method of determining if an individual's weight is in a healthy range. Data on height and weight are based on self-report survey responses. Individuals may not always report reliably. The effect of excess weight as a risk factor for various diseases increases with BMI above the threshold of 25; this is a widely used standard in the health literature.

There are no exclusions from coverage in the survey, such as for on-reserve First Nations, since there are no reserves in Yukon. Note that Yukon data for the underweight category for both males and females are too unreliable to report.

Figure 14.c.1 and 14.c.2 present BMI based on the international standard for males and females, respectively. 45.5 percent of Yukon males and 42.7 percent of Canadian males are of acceptable body weight. This pattern is reversed for males in the overweight category, with 37.5 percent of Yukon males and 39.6 percent of Canadian males considered overweight. The percentages of males in the obese category are roughly comparable in the Yukon and Canada as a whole.

56.9 percent of Yukon females and 54.1 percent of Canadian females are of acceptable body weight. As with the data for males, this pattern is reversed for females who are overweight. 19.2 percent of Yukon females and 25.3 percent of Canadian females fall into the overweight category. 17.6 percent of Yukon women, versus 13.9 percent of Canadian women, fall in the obese category.

FIGURES 14c.1-2. Body weight, Canada and Yukon. Based on the international standard, BMI (Body Mass Index), 2000



Source (Figures 14c.1-2): Statistics Canada

14d. Immunization for influenza for 65+

DEFINITION

Population over 65 who report having a flu shot in the past year.

The data for Yukon seniors, whether combined or separated according to gender, and across the 3 age ranges (65 and over; 65-74 years; 75 and over) are too unreliable to be published due to "extreme sampling variability." (Source: Statistics Canada).

AUDITOR GENERAL OF CANADA

VÉRIFICATEUR GÉNÉRAL DU CANADA

AUDITOR'S REPORT

To the Yukon Minister of Health and Social Services

I have audited the health indicators presented in the Government of Yukon's *Reporting to Yukoners* on Comparable Health and Health System Indicators report of September 2002 based on the commitment made in the First Ministers' Meeting Communiqué on Health, of September 11th 2000. The Conference of Deputy Ministers defined the specific indicators to be regularly reported to Canadians. Reporting health indicators is the responsibility of the Government of Yukon. My responsibility is to express an opinion on the health indicators based on my audit. However, my responsibility does not extend to assessing the performance achieved or the relevance of the health indicators.

Except as explained in the following two paragraphs, I conducted my audit in accordance with standards for assurance engagements of the Canadian Institute of Chartered Accountants. Those standards require that I plan and perform an audit to obtain reasonable assurance whether the health indicators are free of significant misstatements. To this end, I audited these health indicators to determine whether they meet the criteria set out in Annex 1. My audit included examining, on a test basis, evidence supporting the health indicators and disclosures. My audit also included assessing significant judgments made by management of the Department of Health and Social Services. As well, my audit was limited to information related to the most recent year in which each indicator was reported.

Data used for two indicators were drawn from the relevant Canadian Institute for Health Information (CIHI) databases:

- total hip replacement rate, and
- total knee replacement rate.

Documentation of the CIHI quality assurance process for the systems that support the above indicators is inadequate. As well, the three-year re-abstraction study, which will provide information on the quality of the input data, will not be completed for another two years. Therefore, I am unable to form an opinion on the accuracy of the data or on the adequacy of disclosure for the two indicators.

National data for seven indicators were drawn from the relevant Health Canada databases:

- invasive meningococcal disease incidence rate,
- measles incidence rate,
- haemophilus influenzae b (invasive) (HiB) disease incidence rate in children
- tuberculosis incidence rate,
- reported HIV diagnosis,
- verotoxogenic E. coli incidence rate, and
- Chlamydia incidence rate.

Participation in these databases is voluntary, and there is a lack of federal/provincial/territorial agreements on data sharing, data standards and data definitions for these databases. As a consequence, the quality assurance processes for these databases are inadequate to ensure the accuracy of the data. Health Canada states in the federal health indicators report that improvements are required on data quality. Therefore, I am unable to form an opinion on either the accuracy or the adequacy of disclosure of the data used for these indicators.

In my opinion, except for the nine indicators mentioned in the preceding two paragraphs, the remaining 31 health indicators included in the Yukon report and subject to my audit are, in all significant aspects, presented fairly in accordance with the criteria in Annex 1 and provide the information required by the public reporting commitment of the First Ministers.

Management reported the absence of 27 health indicators outlined in Annex 2 and has explained the reasons for their absence in the body of the report. For those health indicators that are reported, comparisons made with Canada should be interpreted cautiously because of the small population of Yukon.

I am encouraged by the work undertaken by the Yukon Department of Health and Social Services in the preparation of its first health indicators report.

Ronald C. Thompson, CA
Assistant Auditor General
For the Auditor General of Canada

ANNEX 1: Audit Criteria

The Yukon Department of Health and Social Services has acknowledged the suitability of the following criteria:

Complete

The health indicators reported meet all performance measurement and reporting requirements of the commitment of the First Ministers' Meeting Communiqué on Health. The health indicators comply with the definitions, technical specifications and standards of presentation approved by the Conference of Deputy Ministers.

Accurate

The health indicators reported adequately reflect the facts, to an appropriate level of accuracy.

Adequate disclosure

The health indicators are defined and their significance and limitations are explained. The report states and properly describes departures from what was approved by the Conference of Deputy Ministers and explains plans for the future resolution of the non-compliance issue.

ANNEX 2: Health Indicators Not Reported

- Five-year relative survival rate for lung cancer
- Five-year relative survival rate for prostate cancer
- Five-year relative survival rate for breast cancer
- Five-year relative survival rate for colorectal cancer
- 30-day acute myocardial infarction mortality rate
- 30-day stroke mortality rate
- 365-day survival rate for acute myocardial infarction [POI]
- 180-day survival rate for stroke [POI]
- Prevalence of diabetes
- Wait times for cardiac surgery
- Wait times for hip replacement surgery
- Wait times for knee replacement surgery
- Waiting for radiation therapy - breast cancer
- Waiting for radiation therapy - prostate cancer
- Reported wait times for specialist physician visits
- Reported wait times for diagnostic services
- Reported wait times for surgery
- Patient satisfaction – community-based services received
- Hospital re-admission for acute myocardial infarction
- Hospital re-admission for pneumonia
- Access to 24/7 first contact health services – difficulty obtaining routine or on-going health services
- Access to 24/7 first contact health services – difficulty obtaining health information or advice
- Access to 24/7 first contact health services – difficulty obtaining immediate care
- Access to 24/7 first contact health services – difficulty obtaining immediate care
- Home and community care services – home care admissions
- Home and community care services – hospitalization rate for ambulatory care sensitive conditions
- Health promotion and disease prevention – immunization for influenza for 65+

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